

Clinical Medicine

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Dr. Oliver Wendell Holmes

AMONG the literary lights of this country the name of Dr. Holmes shines so brightly that many people overlook the fact that he was a notable figure in the medical profession and a distinguished teacher.

Oliver Wendell Holmes was born in Boston on August 29, 1809, the son of Abial Holmes, a minister of long English lineage, and Sarah Wendell, a descendant of Thomas Dudley, who was twice governor of Massachusetts.

When 15 years old he was sent to Philip's Academy in Andover and afterwards entered Harvard College, from which he was graduated in 1829. He then studied law for a year, but, feeling a leaning toward medicine, he entered the Harvard Medical School where he studied for two and a half years under Dr. James Jackson and his associates. His medical education was finished in the schools and hospitals of Paris and Edinburgh and, in 1836, he took his medical degree, joined the Massachusetts Medical Society and began to practice.

In the next two years he won three prizes, for essays on medical subjects, but in spite of this—or, perhaps, *because* of it—he did not make a conspicuous success as a practitioner. His deep and lively interest in literary pursuits absorbed a good deal of his time and attention and his boyish ways

and witty conversation did not tend to attract patients, though they made him a social favorite. He once remarked that the smallest *fevers* were thankfully received.

Those who thought he took his work lightly were wrong, for a more conscientious and painstaking physician never counted a pulse or wrote a prescription. Later on, when he was teaching, he told his students, "Medicine is the most difficult of sciences and the most laborious of arts—and the great practitioners are generally those who concentrate all their powers on their business."

For three years he was one of the physicians at the Massachusetts General Hospital and in 1838 he was appointed professor of anatomy at Dartmouth. This position he held until 1840, in which year he married Amelia Lee Jackson and returned to private practice.

In 1842 Dr. Holmes published two essays in opposition to homeopathy which still rank as classics of their kind, and in 1843 he made his great contribution to medical science in his essay "On the Contagiousness of Puerperal Fever," in which he stated his conviction that this dread malady could be carried from one patient to another or from a case of erysipelas to the lying-in chamber by the hands of the accoucheur. This fact is now so well known that it is difficult to

realize that, eighty years ago, its statement was met with a storm of ridicule and abuse, but such was the case. Semmelweiss, who several years later made the same statement in Europe, also met with much opposition.

These essays, together with a number of others written in his later years, were gathered into a volume in 1882, and this collection of Holmes' "Medical Essays" is a delightful addition to any physician's library.

In 1847, Dr. Holmes was elected to the Parkman professorship of anatomy at the Harvard Medical School and held this chair for thirty-five years, being dean of the school from 1847 to 1853.

He was one of the most popular and capable teachers of anatomy this country has ever produced. He loved anatomy and was always fresh and eager in learning and teaching it. He was one of the first men in America who learned to use the microscope in his scientific studies and taught many students to utilize this invaluable aid to research and diagnosis. While he never made any notable contributions to the science of anatomy, he made this rather dry subject so vital and entertaining to his classes that his lecture was placed at the end of the day, when none of the other teachers could hold the attention of the tired and unruly students.

Dr. Holmes was a close student of medical history and among his works were two medical biographies. His library of over a thousand volumes was presented to the Boston Medical Library, of which he was president for thirteen years. It may be of interest to note that he was the man who coined the words *anesthesia* and *anesthetic*.

But while the medical profession delights to honor Holmes as one of its members, it is as an author that he is best known to most people. And what a versatile author he was! His "Breakfast Table" essays—the "Autocrat," "Professor," and "Poet"—are among the most delightful things of the kind in the English language and show his wide scholarship and keen but kindly humor at their best. He published several novels of distinction and a number of volumes of charming poetry. His "Chambered Nautilus" and "Old Ironsides" are known to everyone who has any acquaintance whatever with our literature.

In person, Dr. Holmes was small and sprightly. His manners were cultivated and his conversation enlivened any group in which he found himself, even his classes of medical students who then, even more than now, were semi-barbarians. In his latter

years he suffered greatly from asthma, but whenever he could get his breath he held the attention of all within sound of his voice.

After his resignation from Harvard Medical School, in 1882, he devoted himself wholly to literary pursuits. In 1886 he made a trip to Europe where he attracted much attention and received honorary degrees from Oxford, Cambridge, and Edinburgh. Returning to his home in Boston, he lived and worked there quietly until his death in 1894.

So passed one of the sweetest souls and the keenest and most versatile minds which has ever adorned our profession. His memory lives in the hearts of those whom he has taught and helped and cheered.

The bread-winning aspects of life might be looked upon as necessary evils, subordinate in "purpose" to childhood, play, sport, art and sympathy, which are more real and final.—Dr. G. T. W. Patrick.

BROTHERHOOD AND PEACE

A hundred years ago—yes, even fifty years ago—everybody but a few so-called cranks admitted that war was a necessary and perhaps a beneficent part of our lives. The idea of universal and enduring peace was so thoroughly impossible that nobody talked about it. It was deemed right and proper that every nation should be ready, on the slightest provocation, to fly at the throat of any other nation. The term, "Universal Brotherhood" was yet to be born.

True it is that we are still a long way from the practical realization of this universal brotherhood, which is a fact in nature, whether we admit it or not, but at any rate we are thinking and talking about it, which shows that it is occupying our minds, as it never has done before. As soon as it assumes sufficient importance in our scheme of things, we will begin to do something about it.

This does not mean that, at the present stage of the world's progress, it would be wise for us to disarm entirely—Heaven knows we have gone far in that direction!—nor emulate or encourage the pacifists and protagonists of "peace at any price", but merely that it is time we began to think of the rest of the nations and peoples in terms of other members of one great family; and wonder what contribution we can make to the general progress.

Professor Hrdlicka says that a distinct new human type is developing in the United States and Canada. If that is true—and it seems to be well verified—why may we not be developing a new type of mind or even

a new type of soul? It may even be that we will have a new function to play in the family of nations.

We stand in a peculiar and, in some ways, highly favorable position. We are more or less isolated, physically, from the centers of the world's population and the hotbeds of wars, so that we may be considered as a reasonably impartial onlooker and adviser. We are enormously wealthy and prosperous. What can we do to show that we are *worthy* of our freedom and material success?

Egypt gave the world the rudiments of science and philosophy; Greece gave us art and the joys of life; Rome contributed the outlines of law and the technic of empire building; India and Asia Minor have been the cradle of all the great religions. What will our contribution be?

Our isolated position puts us, perhaps, in a position to organize and carry through some great and noble social experiments whose outcome may lay the foundation for the peace of the world.

Already an indication as to the lines of our destiny seems to emerge. To whom do the nations of the earth turn in the time of their distress—Russia in pestilence; India and parts of Europe in famine; Armenia when suffering under armed oppression; Japan when torn by convulsions of Nature? To America, as to their natural helper and the steward of the world's well-being!

Perchance our destiny will be to be known, in ages to come, as the nation of the Servants of Mankind—the people who, by recognizing that all men are brothers, first made universal peace a possibility! for it is sure that no peace founded upon compromises and half-restrained national jealousies can endure. It would seem highly appropriate to incorporate some teaching along these lines into the curriculums of our schools and colleges.

Only when the world comes to see that all nations are parts and organs of one great body, and that an injury to one is an injury to all (as the loss of a man's leg cripples his whole body), will the day of abiding peace dawn, for peace and brotherhood are inseparable and are functions each of the other.

The cure for heart-ache is to be found in occupations which take us away from our petty self-regardings, our self-pityings, our morbid broodings, and which connect our life with other lives and with other affairs, or merge our individual interest in the larger whole.—C. G. Ames.

ACETYSALICYLIC ACID

Acetylsalicylic acid—commonly called aspirin, even by those who ought to know better—has very largely replaced the other salicylates in the practice of most physicians because of its milder and more prolonged effects, its comparative freedom from irritant action, its pleasanter taste and the powerful *analgesic* and *antipyretic* powers which it possesses. It occurs in fine, needle-like crystals, is freely soluble in alcohol and ether and in about 100 parts of water.

Physiologic Action.—The action of acetylsalicylic acid is, broadly speaking, the same as that of salicylic acid and the salicylates. On the *nervous system* it acts by causing roaring in the ears and diminished reflexes, if given in large doses. It has little effect on the circulation, but such as it is it is depressing, in massive doses, so that care should be exercised in giving it to patients with *weak hearts*. The slight effect on *respiration* is stimulating.

Fever and, to a much less extent, normal body temperature is lowered, probably by increasing heat dissipation and decreasing heat production.

Uric acid and urates deposited in the tissues are *not* removed by the salicylates, the considerably increased excretion of those substances being due merely to the increase in *general body metabolism*.

Acetylsalicylic acid differs from the older salicylates in that it is broken up in and absorbed from the *bowel* instead of from the *stomach*. This markedly lessens the irritating effect on the gastric mucosa and ensures slower and more prolonged effects. In large doses it is a powerful *sudorific*.

In *poisonous* doses it causes irritation of the cranial nerves, with symptoms of *cinchonism*; depression and paralysis of the muscular structures; and death from *respiratory failure*. It is *incompatible* with *alkalies*.

Uses.—It is probable that, at the present time, acetylsalicylic acid is used more often—and is more widely used—for *pain* of a *neuralgic* or *rheumatoid* type than for any other purpose. Large numbers of laymen are accustomed to keeping a bottle of tablets in the house and "taking a dose of aspirin" whenever they suffer pain of any kind. Such use should be actively discouraged, though in the hands of a physician it is a *reliable* and *practically harmless analgesic* for almost all types of pain.

In common with the other salicylates, it finds its most nearly specific use in *acute articular rheumatism*, in which cases it considerably relieves the pain and materially *shortens* the course of the malady. It has no direct effect in preventing the development of complications, but it does add to the patient's comfort and hasten his recovery.

It is valuable in *lumbago*, *sciatica* and kindred maladies and also in *migraine*, in rheumatic persons; while in *tonsillitis* it is one of the most valuable remedies we possess. Here it should not only be given internally but also *applied locally* to the seat of inflammation, in crystal form, on an applicator, several times a day. Combined with quinine it has been much used in *influenza*, but this combination should be put up freshly each time as, if allowed to stand in the presence of heat and moisture, it develops a toxic substance called quinoxalin.

It is a fairly efficient *intestinal antiseptic* but for this purpose phenyl salicylate (salol) is probably better, just as acetphenetidin (phenacetin) is more efficient in true neuralgia.

It is much used, alone or with other remedies, in the early stages of *common colds* and *bronchitis*, and if the patient can stay in bed for a day or two, it is very effective in these cases.

Acetylsalicylic acid is *useless* in *gonorrheal rheumatism*, and its value in gout and rheumatoid arthritis is probably confined to its analgesic effects.

It is *contraindicated* in meningeal congestion or inflammation, middle-ear disease, renal insufficiency, albuminuria and nephritis as well as in advanced cases of heart disease with weakened circulation.

Dosage.—Acetylsalicylic acid should be given in dry form in tablets or capsules, followed by considerable quantities of water or milk.

In acute rheumatic fever the dose is 10 to 15 grains (0.65 to 1.00 Gm.) every 3 or 4 hours. The drug should be continued for a week or two after all symptoms have subsided. For pain, a dose of 5 to 10 grains (0.325 to 0.650 Gm.) may be repeated as required.

In tonsillitis and quinsy it is better to give smaller doses—3 to 5 grains (0.200 to 0.325 Gm.)—every hour or two until the desired result is obtained, and then less often. As an intestinal antiseptic the dose should be 10 to 15 grains after meals.

The dosage for children should be in proportion to the age and size.

The wide field of usefulness and general harmlessness of acetylsalicylic acid are attested by its popularity with the laity, and in this very popularity, with its large opportunities for misuse, lies the chief danger connected with this drug.

The familiarity of most persons with the name aspirin, and with its physical appearance and properties makes it important, if the physician desires to keep the patient's medication in his own hands, that he should be careful always to use the official name in prescribing or mentioning the drug, and that, if he dispenses it, it should be disguised with some simple coloring or flavoring material or both, so that the patient will be less likely to continue using it on his own responsibility.

Superstition consists in mistaking the nonessential for the essential.—Annie Besant.

THE CHEMICAL FOUNDATION

Few who have not made a special and detailed study of the subject can have any idea of the extent to which the production of dyes and chemicals was controlled by Germany, prior to the War. Their arrangements for strangling in its cradle any infant chemical industry which might be born in this country were astonishingly complete and detailed and proved entirely sufficient.

When armed conflict upset all the World's orderly arrangements, we felt the pinch of foreign control of things which are vital to our personal, economic and industrial life; and, at the same time, a way was opened whereby we might throw off this alien grip on our individual and national life centers.

The work of the Alien Property Custodian was no sinecure in any of its branches, but the investigations resulting in the disclosure of German ownership and interest in the chemical manufacturing establishments in the United States were among the most toilsome and time-consuming of them all.

At last the Nation found itself in possession of something like 4,500 patents on drugs and chemical processes, owned by German citizens, and the serious question arose how to so dispose of these that our own people could enjoy all of the benefits accruing under them, while at the same time rendering it impossible that they should, at any time in the future, fall again into the same hands from which we had rescued them.

The greater proportion of these patents were wholly without commercial value; some were of vital importance; many were between these two extremes. It would be dangerous to turn the important ones over to any individual or corporation, because of the danger of fostering a monopoly of some essential chemical substance; and because of the possibility that German interests might again obtain control. No commercial organization would have been willing to buy the whole group of patents—good and bad together—even if it had seemed advisable to consummate such a sale. The only wise and safe plan seemed to be to turn them all over to some unbiased agency which would administer the whole thing for the benefit of our country and its people and be above and beyond the reach of German industrial penetration.

To meet the crises outlined, the Chemical Foundation was organized and incorporated. The capital stock, amounting to \$500,000.00 was offered to all chemical manufacturing concerns whose management was entirely in American hands, in amounts proportionate to the extent of their business. Not one dollar of these subscriptions can ever earn more than six percent, nor do they entitle the subscribers to any voice in the management of the Foundation. The entire voting power of the stock was vested in five gentlemen of national or international reputation, having no direct connection with any branch of the drug or chemical industry—a judge, three bankers and a great manufacturer. Francis P. Garvan, a New York lawyer, was the first president.

The Chemical Foundation purchased from the Government all of the German patents upon chemicals and processes and then proceeded to issue non-restricted licenses to reputable drug and chemical manufacturers, of unquestionable American management, for the production of any of the substances in which they were interested. The fees for these licenses are so arranged that they will liquidate all the administrative and executive expenses of the Foundation and retire the \$400,000.00 of preferred stock within a few years. Thereafter, any surplus above expenses and the six percent interest on the common stock is to be devoted to the advance of chemical knowledge and education. The officers and voting trustees serve without pay.

What has the Chemical Foundation accomplished for the good of the American

chemical industry and, especially, for the medical profession?

In the first place, we were soon furnished, under its licenses, with arsphenamines, barbital, cinchophen and many other drugs of American manufacture, in place of the German products which had been marketed under trade names. The non-fading alizarin and anthracene dyes were made available to American chemists and manufacturers. Many substances essential in the steel, packing and other industries were released from foreign control. The immense significance of these matters can be appreciated only by those who have made a study of industrial conditions in general and of the chemical industry in particular.

Another side of the question which might easily be overlooked by the casual thinker is the fact that the same technical skill, knowledge and equipment which are required for the manufacture of drugs, are the identical requirements for the development and production of explosives. We pray that we may never again be engaged in warfare, but if that should befall we are now in a position to be independent of any other nation in the matter of essential munitions, including lethal gases, provided we do not go to sleep on the job or permit our representatives to hog-tie us with impracticable restrictions.

But this immediate, practical benefit, while the most spectacular result of the Foundation's activities, is by no means the most significant. There had been little incentive to chemical research and study in this country before the war, and the Foundation at once took steps to secure the wide dissemination of chemical information among our citizens. It purchased 100,000 copies of Slosson's "Creative Chemistry" and of Gregory's "Discovery, or the Spirit and Service of Science" from the publishers; printed several other books, among them "Chemistry and Industry", Lefebure's "The Riddle of the Rhine", and "The Future Independence and Progress of American Medicine in the Age of Chemistry"; and sent the whole set free to every public library and to all school libraries that were sufficiently interested to request them. Single volumes or sets were sold to individuals at a nominal price. To this library have recently been added a second volume of "Chemistry in Industry" and also "Chemistry in Agriculture", and more will be issued from time to time, including a book on "Chemistry in Medicine".

In order to stimulate interest in chemistry among the younger generation, substantial prizes were offered for the best essays on various chemical subjects written by the students in the chemistry classes of every high-school in the country.

Hearty encouragement and support have been and are being given to chemical students and investigators in all branches of the science especially, just now, with regard to the standardization of bacteriologic stains; and now that the Supreme Court of the United States has officially removed all uncertainty as to the purposes and status of the Foundation and its activities, this work should go forward with a rush.

Such, in brief, is the story of an institution whose effects upon many aspects of our national life is so broad, so far-reaching, that there are a few today, even among those who are best informed, who would venture a prediction as to the enormous results which will ultimately be realized.

Liberty is a great, celestial goddess, strong, beneficent and austere, and she can never descend upon a nation by the shouting of crowds, nor by the arguments of unbridled passion, nor by hatred of class against class.—Annie Besant.

MISTAKES

The "Sage of East Aurora" once remarked that the man who never made any mistakes never made anything else.

We physicians are constantly doing things, and are, therefore, frequently doing something wrong—not indulging in wilful wickedness but doing things which seem sound and proper today, but do not appeal to us so strongly tomorrow; or doing fine and useful things in the wrong way, so that trouble and unpleasantness result.

So long as we continue to be human, we shall continue to make some mistakes from time to time, but the surest way to minimize the frequency and seriousness of these errors is to face them frankly and study them carefully. If we can talk them over with someone else, so much the better.

The man who makes a mistake once need feel no shame, provided he had never been warned of the probability in advance; but he who makes the same mistake a second and even a third time is lacking in judgment or perspicacity or both.

He who denies his mistakes and runs away from those who might be able to correct them is foolish. The surgeon's knife causes pain to the man with a tumor, and the correction of our mistakes often causes

us sharp pangs in our *amour propre*—but both are highly salutary, in the long run.

If each of us would, at the close of each day, spend a few minutes in reviewing the day's events and considering our actions among them, we might profit greatly thereby. If we would freely admit the mistakes we have made, both great and small, study them in detail so as to learn how and why we made them, and firmly promise ourselves not to make the same ones again we certainly will profit, immensely.

One of the most valuable medical lectures we ever listened to was entitled, "Mistakes I have Made in Diagnosing Chest Conditions". That fellow knew he had made many mistakes; studied them out until he was set right; told his friends about his failures and the lessons they had taught him; and then went right on working—and making more mistakes—but never making the old ones a second time nor letting others make them if he could prevent it.

Let us all try to get rid of our fear of *acknowledging* our mistakes. One good way to do that is to talk them over with someone. If doing this face to face with an individual is too drastic a medicine, write them out and study them when the writing is cold. This will help you.

Then, if you want to help others, publish these accounts of errors, together with the proper answers to the problem, which you should endeavor to find in all cases. If you can not find the right answer by yourself, publish your story, anyway, and it may be that someone will help you find what you are looking for.

We are all making mistakes every day and a free consideration and discussion of them will take most of the curse off and help us and others to keep from making the same ones over and over.

When a man's vessel is upset and its masts broken, he is poor for a time; but when a man marries a bad wife he is poor for life.—Chinese Proverb.

THE PUBLIC DRINKING CUP

It is an evidence of progress in civilization and general enlightenment that one of the landmarks of days gone by is gradually disappearing from among us. This striking evidence of misplaced confidence in humanity—or of gross ignorance of the elements of hygiene—is the public drinking cup.

If one were able to compile statistics as to the number of deaths and the weeks and

months of illness which have resulted directly from the promiscuous use of common drinking vessels, one would find that these omnibuses for bacteria have slain their thousands—yea, their tens of thousands.

Only a few years ago, it was no uncommon sight to see persons who were obviously in the late stages of phthisis or who bore the lesions of syphilis upon their lips, depositing the microorganisms of their diseases upon the rims of the utensils provided for drinking purposes in public places. The next drinker was almost sure to gather in a number of these bacteria, after which his health, or even his life, depended solely upon his own powers to resist infection.

The banishment of public drinking cups by practically all railroads and by the Pullman Company, substituting individual cups made of paper, and the installation of sanitary drinking fountains in most schools and industrial and commercial establishments has, without doubt, been one of the factors which has been active in lowering the death-rate and adding to the span of life.

When one remembers that most of the contagious diseases of childhood, as well as all the various respiratory diseases and syphilis, are commonly transmitted by the secretions of the mouth and pharynx; and that children, who are most susceptible to these infections, are the ones who are least likely to understand the danger or take any precautions in using public drinking vessels, one can find a basis for an estimate of the place which they have occupied as causes of morbidity and mortality.

In most parts of the country the public drinking cup has been wholly routed or is on the run. In communities where it still survives it should be made a target for vigorous attacks by all physicians and teachers. With people who have any imagination or who think at all, it is necessary only to tell them some of the things which most of us have seen and which all of us know. If the picture is painted with any vigor at all, it will produce an impression which will stop the careless hand which is raising one of these disease breeders to the lips.

If your community is behind the times in matters of sanitation, enlist the cooperation of the teachers and the editor of the local paper and see to it that, in one way or another, this message is carried to every man, woman and child in your village, city

or county. We must not rest until not one public drinking cup remains to mock our claims to civilization and menace the health and happiness of our people.

THE LITTLE STICKERS WITH THE DOUBLE CROSS

We read, every here and there, that we now have tuberculosis on the run; that the death rate has fallen fifty percent in the last twenty-five years; and other things like that. These statements are all perfectly true, but did you ever stop to think how and why we have been able to put the "Great White Plague" on the defensive?

A number of factors enter into our hard-won victories over tuberculosis, but prominent among them is the determined, persistent, organized campaign which has been waged against it, financed, very largely, by the moneys obtained from the sale of the little stickers with the double cross which people are—or soon will be—asking you to buy.

Cancer has outstripped tuberculosis as a cause of death in this country and is, properly, occupying much public attention just now. Do not let the cancer propaganda lull you into the false impression that tuberculosis is no longer a problem. It is, to be sure, in retreat, but our victory over it is far from won and we must carry on the good work for years and years.

Everybody is, or should be, personally interested in tuberculosis control; and there are so many of us that no one needs to "give until it hurts". Be reasonable about this thing. Every person in the United States over ten years old ought to buy at least five or ten of these Christmas stamps. Many of us should buy a thousand. If every one will do *his own* part, without worrying or even thinking about what somebody else is going to do, we will put this thing over with a *bang*, and nobody will be "double crossed" except the old gentleman with the hour-glass and the scythe.

It is only by great effort that man can become incredulous to soothing fancies and believe in the truth of that which is painful.—Homer Lee.

CHRISTMAS AND CARNIVALS

The word carnival is an old one, of Italian derivation (*carnevale*), and even further back from the Latin. Freely interpreted it means "Good-bye to meat".

The carnival is a festival widely celebrated in Roman Catholic countries in the past and, to a less extent, today, as a final effervescence before entering upon the penitential fasting of Lent. The Mardi Gras ("Fat Tuesday"—Shrove Tuesday; the day before Ash Wednesday) pageant which draws so many merry-makers to New Orleans every early springtime is the most important survival of the carnival in this country.

As may be readily seen from its derivation and significance, the carnival emphasizes particularly the old Epicurean idea, "Eat, drink and be merry, for tomorrow we die"—at least to the indulgence of the flesh, for a time. The carnivaler seeks to sate himself with all kinds of fleshly joys against the days of deprivation. Since early days, carnivals have been carouses—orgies—and even today the true carnival spirit contains a strong flavor of the orgiastic. It is an outburst of selfish hilarity which is usually harmless and frequently beneficial to certain types of people as a safety valve for repressed emotions.

Christmas is regarded by many as the greatest festival of the Christian year. As a matter of fact, the midwinter celebration is much older than Christianity and commemorates the passing of the winter solstice—the turn of the year toward spring and the renewal of life.

But the festivities of the Yule Tide are far other than those of a carnival. There the motive was selfish; here it is benevolent and generous. There it was hilariously sensual or even licentious; here it may be

hilarious, too, but it is a saner and more truly joyous hilarity, shading into the calm, high happiness that comes with the assurance that the worst is over and relief is in sight. There it was followed by a period of enforced self-denial; here it is (or should be) preceded by a period of voluntary self-denial which will permit us to express our joy and love to our friends by means of gifts or tokens of kindly remembrance.

By all means, let us restore Christmas to the high place it held, as a festival, in the time of our parents and grandparents. We can do this without turning it into a carnival. The wise man shuns an orgy; but it is a false dignity which could be disturbed by a little harmless horseplay at Christmastime, even if the festivities become rather boisterous.

Let us forget ourselves entirely for this one day in the year, at least, and devote our entire energies to the task of making somebody else definitely happier. Let us forget our years, our clothes, our cares and our position in society and romp and sing with the youngsters. Let us try to please our friends in *their* way—not in *ours*.

And when night closes in on this, the greatest and most truly joyous of our festivals, let us gather around the hearth—leaving the shades *up*—to sing the old songs, tell the old stories, crack the old jokes and love our family, our friends and all the world in the good, old-fashioned way. In so doing, we shall make for others—and so for ourselves—

A VERY MERRY CHRISTMAS



Leading Articles

Some Problems of Peptic Ulcer*

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PEPTIC ulcer is an extremely common disorder and is a fruitful source of invalidism among a large number of people. The mystery that surrounds the ulcer problem, its cause and nature, clinical course and treatment, commands the attention of the master minds in medicine throughout the world, and the interest manifested in the subject is reflected by the frequency of its consideration among medical men wherever medicine is discussed. No medical symposium is complete without the consideration of the present status of peptic ulcer. One is impressed with the multiplicity of opinions rather than facts, and with conflicting ideas and theories relative to the subject. Confusion and chaos frequently supplant reason and logical thinking. Not infrequently the literature refers to conclusions based on empiric therapy and inaccurate clinical observations that violate elementary principles in physiology and do not conform to the exacting requirements demanded by the scientist.

What is the cause and nature of ulcer? Why do some ulcers heal readily and others not at all? Why do they recur after healing, or after excision or even after subtotal gastrectomy? What is the cause of the pain and what are the factors in the prevention of repair? These are some of the pertinent questions involved in the ulcer problem, and must be solved before the clinician can apply any rational therapy or hope to establish any uniformity of management that will meet the requirements of the biochemist and the tenets of the physiologist.

While brief reference will be made to some of the technical problems that confront the investigator, more effort will be made to emphasize the principles involved in some of the clinical problems, and the application of these principles in a practical way at the bedside. From the nature of the subject it follows that this must also be brief.

In clinical aspects of ulcer one is confronted with a type of dyspepsia comparatively benign and characterized by chronicity and periodicity. Anatomically, there is a defect in the wall of the stomach or duodenum and this defect is in the nature of a devitalized area that undergoes necrosis and digestion, and is the local process that is the basis of the clinical and pathologic manifestations of a syndrome known as peptic ulcer. With the establishment of this defect, it is difficult to predict the outcome. It may undergo resolution and spontaneous healing, with or without symptoms; with or without treatment. Or it may be progressive and destructive, resulting in alteration in function and structure of the stomach and adjacent viscera, markedly interfering with the comfort and efficiency of the individual, and at times may cripple the whole digestive apparatus. Not infrequently its clinical course is accompanied with accidents such as perforation, or a violent hemorrhage that may seriously threaten life.

The frequency of a disorder with such active menace to health and happiness demands the earnest and thoughtful consideration of everyone interested in the solution of the ulcer problem.

Nervous Instability as an Etiologic Factor

The contention among investigators centers around the primary factors concerned in initiating the changes that result in the formation of a defect which permits the stomach to digest itself. Careful consideration of the many theories advanced to explain this phenomenon lends support to the contention that this defect is but a local process with a constitutional background; and the proper understanding of the clinical course and treatment of ulcer requires a comprehensive conception of the physical impairments of the patient as a whole rather than isolated concentration on ulcer as a primary disease.

*Presented at the Medical Round Table of Chicago, October session, 1926.

Experimental and clinical observations support the view that peptic ulcer is primarily a constitutional disease, and the fundamental factor in its etiology is an inherent impairment of the nervous system, due to an inherited predisposition. Emotional instability and nervous phenomena are often outstanding features in the clinical course of ulcer. Dyspepsia and nervousness are often observed as a family trait in successive generations, highly suggestive of an inherited influence with a neurogenic basis. The vasomotor system controls the caliber of the capillaries distributed throughout the organs of the body, including the stomach and, when functioning properly, results in an equitable distribution of nourishment. When this function is interfered with, it becomes one of the factors in the production of a large number of dyspeptic conditions, including ulcer formation.

The degree and type of irritability, whether it is vasoconstriction or vasodilatation, or both, determines the nature of the gastric disorder. Abnormal vasomotor influence on the blood vessels of the stomach impairs nutrition, lowers resistance and the area involved becomes a potential ulcer.

An individual, then, who begins life with a vasomotor irritability and emotional imbalance, together with undue susceptibility to external impressions of all kinds, may exhibit a great variety of subjective responses not infrequently gastrointestinal in character which are, for the most part, in the nature of an alibi. During times of stress, physical or mental, domestic discord, financial anxieties, social trials and other problems of modern civilization, the emotional defective may respond with a physical complaint, such as a nervous dyspepsia, nervous diarrhea, mucous colitis, irritable colon, pyrosis or a "lump in the throat". One's attention is often focused on this type of disorder as primary and the underlying factor, with an irritable and disagreeable disposition considered as secondary; whereas the opposite is true.

When the pathology is more severe and the habit is firmly established, organic changes take place; and when the emotional training has been neglected, with unfavorable environment and bad associates, we have the potential criminal of the emotional type. That this influence is active at an early stage is evidenced by spasms in infancy, tantrums of childhood, laryngismus stridulus, spasmophilia, chorea, epilepsy, etc., which can be explained only by

an inherent nervous instability and developmental faults. A business man does not succumb at fifty because he has been successful in business or from the responsibilities incident thereto, or from overwork, or overeating, or because he drinks whisky or uses tobacco. The underlying cause of death at fifty, aside from accidents, such as a motor car collision or an attack of pneumonia, is a constitutional fault, and is not especially concerned with the so-called wear and tear of life. Longevity is largely a matter of ancestry. If one wishes to live a hundred years, it is well to spend considerable time in picking out one's ancestors.

Other Causal Factors

A theory, therefore, that places the nervous phenomena of the various types of dyspepsia, including ulcer, on an anatomic basis and interprets them as primary rather than secondary, appeals to the clinician, because at the bedside he has abundant opportunity to observe the nervous factors of ulcer. If one can conceive of a constitutional inferiority and vasomotor imbalance as the exciting cause of ulcer, the relation of a large number of contributory factors becomes more apparent and permits of their proper evaluation. Thus, the relation of infection to ulcer assumes significance as a secondary involvement of an area already ulcerous. The activity of bacteria becomes an important factor in the prevention of repair and also as a plausible explanation of relapses, so common in ulcer. Likewise, abnormal gastric chemistry is not concerned in the production of ulcer, but, with disturbances of motor power is active as a cause of local symptoms and in the hindrance of healing.

Due consideration should be given to the possibility of syphilis, the untoward influence of endocrine dysfunction, allergy and vascular degenerations, together with mechanical, occupational and environmental hazards. Dietary indiscretions do not cause ulcer and are a negligible factor in its recurrence. Other etiologic factors are for the most part of secondary importance.

Gastric Motility

Normally there is coordination in the muscular contractions of the stomach and in the opening and closing of its orifices. Whenever a condition exists that interferes with coordination and rhythmical contractions, a group of symptoms arises, the severity of which depends on the degree of abnormal function. In fact, the outstanding cause of local symptoms in the dyspepsias

in general and ulcer in particular centers primarily around abnormal peristalsis, and consequent disturbance of motor function, recognized clinically as delay in emptying time, and the most potent factor in the cause of this delay is disturbance of rhythm.

It has been shown experimentally that if a piece of the wall of the stomach is removed from the lesser curvature, a permanent delay in emptying time results. This is of practical importance to the surgeon, for, when he excises an ulcer in this area, it becomes necessary to do also a gastroenterostomy to compensate for the permanent delay in evacuation time.

In connection with gastroenterostomy for ulcer, it has been shown that, irrespective of the number of stomas in the wall of the stomach, the organ does not empty itself appreciably sooner than normal time. You can not drain the stomach in the sense that we understand drainage. You can not make a funnel out of the stomach. In the surgical attack on ulcer, and particularly with the radical procedures advocated today, it is well to remember that the operation must not only be well performed, but well conceived, with due physiologic consideration and the preservation of function of the organs of digestion.

Symptomatology

The outstanding features in the symptomatology of ulcer include: first, absence of pain when the stomach is empty; second, pain comes on two or three hours after eating an adequate meal; third, pain is relieved by food; fourth, pain is relieved by alkalis; fifth, acid values are usually increased. This combination of findings, together with a history of remissions, and in the absence of incompatibility, is highly suggestive of ulcer. Extra-gastric conditions frequently mimic the symptomatology of ulcer, but there is often some incompatibility, and a significant one is the absence of remissions.

Diagnosis

The diagnostic problems of ulcer are, for the most part, fairly easily solved, for with the aid of modern diagnostic procedures, the condition is readily recognized in the vast majority of instances.

The advice of our forefathers is still good, for they maintained that in order to arrive at a conclusion, it is well to proceed in an orderly manner. First in order is the clinical history; second, physical examination; third, laboratory examinations.

The earmarks of ulcer as found in the history, and the outstanding feature in the

anamnesis, is periodicity. In these days of laboratory diagnosis, physical examination is rapidly becoming a lost art. The most common cause of dyspepsia is not ulcer or cancer or gall-bladder disease, but *heart disease*; and we have in mind signs and symptoms that occur ten or fifteen years before the classical signs of decompensation appear. One of these early symptoms is dyspepsia. If you are in the habit of sending your dyspeptics, without history or physical examinations, to the roentgenologist for diagnosis, you will miss the diagnosis of the most common cause of dyspepsia.

The roentgenologist cannot help you in the diagnosis of the dyspepsias due to pernicious anemia, Addison's disease, hysteria, tumor of the brain, locomotor ataxia, pregnancy and many other conditions. In order to arrive at a conclusion, it is necessary to make a physical examination. In the physical examination of ulcer, it is not so much what you find, but the important thing is what you do not find.

In the laboratory diagnosis of ulcer, roentgenological examination is valuable, more especially in determining the type of ulcer, its location, the presence or absence of complications and, most important of all, the recognition of evidence of healing.

The presence of visible or occult blood in stomach contents or stools, when persistent and in the absence of errors of technic and contamination, is a significant finding that must be accounted for, and can not be ignored. The bleeding of ulcer is intermittent; the bleeding of cancer continuous. Not all cancers bleed, but when they do bleed, the bleeding does not stop. When blood is found in stools intermittently, it is probably not due to cancer, but may be due to ulcer. The value of all laboratory findings is greatly enhanced when interpreted in conjunction with a careful clinical history and exhaustive physical examination.

Ulcer and Cancer

In connection with the diagnosis of gastric disorders, one assumes an ominous responsibility, because of the possibility of cancer of the stomach masquerading as a simple dyspepsia with a paucity of signs and symptoms difficult of interpretation. That the menace is real is evidenced by the fact that any hope of cure depends upon an early diagnosis.

The cancer problem is a national problem, and hope of ameliorating the incidence of cancer is largely a matter of education and

prevention—educating the public to the dangers of delay in dealing with dyspepsia or potential cancer and the wisdom of timely and accurate observations that will reveal pre-cancerous lesions and conditions, amenable to simple preventive measures.

Full realization of the possibilities of prevention will reduce the incidence of the dyspepsias, including ulcer and cancer, and critical scrutiny of the dyspepsias in the early stages and a rational and accurate management will tend to prevent irreparable structural damage to the important organs of digestion.

The early diagnosis of cancer of the stomach is clinical. One cannot wait for the classical symptomatology, abnormal gastric chemistry or roentgenologic confirmation. These are all late findings. When confronted with a dyspepsia of short duration and definite onset, without previous attack, progressive in character, unexplainable by an exhaustive diagnostic survey, together with a delay in evacuation time that does not improve with accurate management, such a dyspepsia is potentially cancerous. In the absence of incompatibility, it is proper to call in a surgeon, not for exploration, inspection and palpation, but to do a resection. We do not trust anyone to confirm the diagnosis except the pathologist with his microscope—obviously after the stomach has been resected. *Cancer begins with the abnormal division of an abnormal cell!*

Treatment

The underlying principles involved in the present-day medical therapy of ulcer were inaugurated by Leube more than fifty years ago, when he emphasized the importance of physiologic rest, control of gastric secretions and control of its motor power as important factors in the management. While various modifications and types of treatment have been introduced from time to time, with refinements of technic, the basic principles of Leube's recommendation still hold.

With a broader conception of its etiology, it becomes necessary to take other factors into consideration in the rational control of ulcer. It is not only a question of controlling gastric activity by starvation, rectal feedings or the giving of soda, but involves a critical study of the inherent nervous impairment and the psychic and emotional instability. If ulcer is a constitutional disease, it requires constitutional treatment.

Consistent results in ulcer therapy demand perfect control of the patient and his

cooperation and confidence. Treatment includes physical and mental relaxation, psychic and emotional control, chemical and motor control, dietetic and fluoroscopic control and finally direct visualization of progress of repair with the gastroscope.

The dietary consideration involves a sustenance diet that will maintain nutritional equilibrium with due regard to function and tolerance of the stomach. Attempt is made to eliminate infectious foci. Vaccine therapy is used to combat infection; protein therapy to allay vasomotor irritability and promote healing. Advantage is taken of the use of such remedial measures as sedatives, stimulants, blood transfusion and the judicious and carefully controlled use of alkalis. When indicated, the surgeon is called in to remove pathologic tissues and effect structural repair. Special consideration is given to individualizing the management to meet the indications in terms of etiology, morbid physiology and morbid anatomy.

The object of treatment is healing of the ulcer and is an objective that must always be kept in mind. It is known that an ulcer heals in one of two ways: First, it heals by primary intention if the ulcer has been successfully excised; second, it heals by secondary intention, the formation of granulation tissue, epithelization of the edges and scar formation.

In the vast majority of those who recover from ulcer, healing is effected by the formation of granulation tissue. In dealing with repair of tissues of any kind, nature is our most faithful ally. It is difficult to conceive of the thoroughness with which she performs this function. The gynecologic surgeon frequently has opportunity to inspect apparently hopelessly diseased tubes. If he has the courage to leave one of those tubes alone, his patient may at some future time require the services of an obstetrician. If you had occasion to inspect that tube at a later date, you might have great difficulty in discovering any signs of previous inflammation. Nature's ability to repair has restored both function and structure. With such an ally we approach the problem of healing of ulcer with confidence. Our great aim is to assist nature by placing the parts in a condition favorable to healing, remove factors that hinder repair, and give nature opportunity and *sufficient time* to effect healing with a firm scar.

If nature will heal a simple ulcer following gastroenterostomy, it will heal it without a gastroenterostomy. It will heal it without complications, sequels, danger or any

mortality. After all, safety of the patient is the important consideration.

The Use of Soda

The popular use of soda in a large number of dyspeptic conditions meets with favorable subjective responses, and by reason of the frequency of dyspepsia and its national distribution, we have become a nation of soda eaters. While the taking of soda may be harmless in itself, the relief it affords is a sufficient excuse for the patient to neglect proper advice at a stage when the disorder is largely a preventive problem. The patient's interest ceases when the pain is relieved. While interested in the relief of pain, the right type of physician's chief concern should be with the cause of the pain. *Soda does not cure ulcer any more than iodine cures toxic goiter.*

Much of the confusion that surrounds ulcer therapy is due to an erroneous interpretation of subjective improvement as an evidence of healing—an error that is prevalent among laymen and physicians as well. Symptomatic relief is not synonymous with cure and, while it may be presumptive evidence of healing, it is not positive. Positive evidence of healing is an objective finding, not subjective.

Our conception of adequate ulcer therapy is a satisfactory evidence of complete repair, irrespective of subjective impressions. When this principle is recognized generally and accepted as a criterion of cure, medical treatment of ulcer will become an accurate and definite procedure with uniform and consistent results commensurate with the effort expended.

From the incidence and distribution of ulcer, the problem of adequate control is a matter of concern. It must be conceded that any therapy, in order to accomplish the greatest amount of good, must be simple, safe, effective, and available in a practical way to the average physician. Such a treatment is essentially medical, and involves a fundamental knowledge of the underlying cause, careful consideration of the type of dyspepsia, critical attention to details and a clear conception of the principles of repair. Consistent results must be obtained even with modest surroundings and equipment.

Conclusions

By way of conclusions, we wish to emphasize that ulcer is a constitutional disease with an inherent nervous impairment and vasomotor irritability.

Emotional and psychic instability are important contributory factors in the cause and clinical course of ulcer.

The relation of infection to ulcer is significant as a secondary involvement of an area already potentially ulcerous, and as an adverse factor in healing and recurrence of ulcer.

Abnormal peristalsis and gastric chemistry are potent factors in the local cause of symptoms and must be controlled for adequate repair.

The criterion of cure is based on positive evidence of healing irrespective of subjective impressions.

The habitual use of soda is a potential source of danger and should be discouraged.

For a comprehensive control of the dyspepsias, both simple and ulcerous, emphasis should be placed on prevention, early diagnosis and adequate care in the early stages.

30 N. Michigan Ave.

Discussion

By Dr. Franz Nagelschmidt, Berlin, Germany:—It does not seem likely that one shall look with success for the cause for the formation of a stomach ulcer. Different etiologic factors may be present which alone or in combination produce, in different individuals, different forms of stomach or duodenal ulcers.

For the diagnosis it is a fact that no one of the classical symptoms is really proven. I have seen, at postmortems, stomach ulcers the size of my hand which during life have never caused any symptoms and neither have they been the cause of death. In other cases a small ulcer makes most intense troubles. The time after the meal when pain occurs and the character of the pain, neither are proven.

I know cases in which operation has been made on account of characteristic symptoms and no ulcer could be detected. The character of the pain cannot always be defined. Real ulcer pain cannot always be distinguished from a painful pylorospasm or perigastritis, in a case of cholecystitis. Even the x-ray examination fails often.

If no distinct niche symptoms or changes of the bulb are present, the negative x-ray diagnosis does by no means exclude stomach ulcer. Fortunately, in the last year in Germany, great progress in the x-ray examination has been made, and as I do not know if this method is known here, I shall describe it briefly.

One fills the stomach and waits until peristalsis begins, or one provokes it mechanically. Then one photographs the stomach. The peristaltic wave needs about 18 seconds to run over the stomach. If one takes during this time six plates, one every third second, one cannot see much on the single plates. But if one now outlines the six pictures, only the exact contours, and superposes by means of exact marks (photographed with the stomach) so that they cover each other exactly, then one sees, in the case of an ulcer, that every peristaltic wave stops at the site of the ulcer and continues after it, so that at the place of ulcer all outlines cover each other on a short space in one single contour line.

If one considers further some details in the characteristics of the form and amplitude of the wave at the ulcer curvature and at the opposite one, one can not only make out the ulcer diagnosis with certainty but even localize the site of the ulcer with great accuracy. In many cases in which the common x-ray examination showed itself negative, this method has revealed the positive ulcer diagnosis. I consider this method as a great progress and recommend it to you urgently.

If the diagnosis "stomach ulcer" can often only be ascertained with great difficulty, the statement of healing is still more difficult. In fact, I am generally not able to tell my patients when they really are healed and how long the healing will stand. We succeed often by skillful treatment in making the clinical symptoms disappear—diet, rest, alkalines, atropine and psychic treatment.

I have seen, in many cases of undoubted ulcer, and also in cases of simple hyperacidity and pylorospasm, best results of x-ray treatment. A very light, deep therapy has a very eminent pain soothing action. Patients who are put under the x-ray tube with severe pains are relieved in a few minutes or seconds. And I observe, generally, after one single treatment, considerable subjective improvement. I use 3 mm. of aluminum filter; 180,000 volts tension; 23 cm. focus; skin-distance, around field, of $2\frac{1}{4}$ cm. diameter; and one-fifth of the erythema dose. After about four months, I repeat the treatment.

Intermittent atropine treatment has shown itself useful in cases of hypersecretion.

If alkalines are administered they ought to be given in sufficient doses to produce a complete neutralization of the gastric juice. I give 5 Gm. at once and as often

as troubles occur—five, eight, ten times during twenty-four hours and even during the night, if there is no contraindication.

There is no doubt that x-rays do not heal lesions immediately, but the pain-soothing action occurs very quickly and the pylorospasm is dissolved. Probably the x-ray action on the ulcer itself is as always, a very complicated one. Just as in ulcer of the legs the x-ray has a healing efficiency, so stomach ulcers are improved after a time. A number of cells are killed or damaged by the x-ray. Products of decomposition enter the circulation and are dissolved and, similar to parenteral protein applications, stimulate the reactive processes of the organism and induce healing, probably in a roundabout way by action on endocrinal secretion; certainly, too, by an influence of the autonomic nervous system.

The sequels of ulcer of the stomach merit a short consideration. At first the question of cancer and surgical operation. I know a case in which, through the x-ray examination in series, a small ulcer has been detected with an ulcer history pointing to a very short existence of the state of the disease. The operation showed a very small fresh ulcer which was excised far into the healthy tissue; but the histologic examination showed it to be cancerous. In a few months, the patient died by metastases in the liver. After this experience one could not make a diagnosis and operation early enough. But not all stomach ulcers show malignant degeneration and so the physician will have to decide each case on its merits.

Another very grave consequence is pyloric stenosis. But here, too, we are in possession of very active therapeutic possibilities. I had to treat, about five years ago, a very severe case of ulcer of the stomach, persistent for many years, with severe hemorrhages, which was under very careful clinical attendance on account of complete pyloric stenosis, without any therapeutic effect until then. The pylorus was continually impermeable for liquids; patient had rectal feeding; the stomach had to be emptied several times daily from a secretion of several litres, by stomach pump; immediate danger to life was present, but the patient refused operation. There were continuously present severe pain and eructations. The much-dilated stomach showed through the very thin and fatless wall of the abdomen, for the patient was totally emaciated and dried out, so that the contours could be distinguished from a distance.

After three weeks' diathermy treatment, a complete revolution set in. After three weeks semisolid food was passing; after three months a rich but careful diet could be administered and digested. The patient now without further diathermy treatment presides over her household, fulfills her social duties, and lives in relatively good health.

This softening of scars corresponds to the many thousands of operations which we have collected in the war experience, in externally controllable body parts, as well as in esophageal, rectal, and urethral strictures.

I believe I am right in recommending to you the three methods: *The x-ray examination in series* for the diagnosis of ulcer of the stomach; *the x-ray deep therapy*, with small doses, for the subjective and objective improvement and healing of the ulcer; and *diathermy* for the treatment of pyloric stenosis, as well proved by experience and as having shown good results.

By Dr. Meyer Solomon, Chicago:—The neurologist and psychiatrist finds it especially important to know a great deal about gastric and duodenal ulcer, especially when to call for consultation with a gastroenterologist to help differentiate a gastric functional neurosis from organic disease.

A careful, sequential history, minute and detailed description of the general ensemble (associated signs and symptoms outside the stomach) are of decided significance. More gastric functional neuroses are diagnosed gastric and duodenal ulcer than is true of the reverse diagnostic error. This applies not only to neurasthenia, anxiety neurosis, hysteria, and hypochondria, with the resulting false gastropathies, but more particularly to cases of migraine. Migraine patients frequently have abdominal, especially gastric equivalents (so-called abdominal migraine) which replace the attacks of headache in addition to the gastrointestinal manifestations which are directly associated with the attacks of headache, well described as "sick headache". Furthermore, migraine patients often develop a functional neurosis as a superimposition, due to fear, emotionalism, self-observation and autosuggestion, and if this happens to be accompanied by a localized gastric syndrome, the difficulty of diagnosis is pronounced.

X-ray examination done without atropine may simulate organic disease very closely. Two such cases were mentioned, in which diagnosis of ulcer was made, based largely on x-ray findings, and backed up by a sug-

gestive history, but without atropine having been used during the x-ray examination, to produce relaxation by its action on the visceral nervous system. Subsequent follow-up work and study showed the error. Hurried diagnosis of organic disease, based on insufficient data and examination, is, therefore, to be carefully guarded against. The same may be said for the diagnosis of chronic gall-bladder and appendix disease.

By Dr. Gustavus M. Blech, Chicago:—Our lack of knowledge of the exact cause of nonspecific ulcer is responsible for our rather empiric present-day therapy. But we have made wonderful strides forward since the days when an humble American Army surgeon—William Beaumont—first studied gastric function in the living human being.

While we are, as yet, uncertain as to the etiology, the diagnosis is less uncertain, due to the more exact methods of investigation that are now available. An exact history is more important than the examination at the bedside. X-ray studies must be made with great care lest we confound pylorospasm with gastric or duodenal ulcer. I desire to emphasize the tremendous importance of gastroscopy which, in competent hands, will give results similar to those obtained by cystoscopy of the bladder. I go so far as to say that the gastroscope makes possible the recognition of malignancy of the stomach, in its early stages.

Peptic ulcer without serious hemorrhages presents a problem of internal medicine, the surgeon entering the field only when called by the internist for the arrest of hemorrhage or the repair of a perforation. Resection of the stomach should be done only in malignancy, as excision of an ulcer with posterior gastroenterostomy will usually prove effective. Ulcers return no matter what method is used and many patients are not freed from their distressing symptoms by several operative procedures.

I am pleased to hear Dr. Thorsgaard emphasize the constitutional aspect of peptic ulcer. That is a proper step towards individualization at the bedside, for it is certain to dictate a varying but all the more rational therapeutics.

By Dr. Jos. C. Beck, Chicago:—Seventeen years ago, I had my first experience with a case of clinically diagnosed ulcer of the stomach which cleared up with medical treatment following the removal of infected tonsils. In this case no recurrence of the ulcer has ever been noted. The patient is

still well. Since then I have seen a small number of cases of a similar type, not exceeding a dozen. However, in most of these a more definite radiologic diagnosis of ulcer having been made, similar results were obtained.

In a large number of cases of gastric ulcer in which tonsil operations were performed, subsequent operations on the

stomach appeared to be necessary. The most recent case of gastric ulcer in which the tonsils were removed is three and one-half years ago and there has been no recurrence of the ulcers in that time. I am very carefully watching for recurrence of the gastric ulcer in those cases which were cured by medical treatment following removal of the tonsils.

Physical Treatment of Cardiac Diseases

By CURRAN POPE, M.D., Louisville, Ky.

Medical Director, The Pope Hospital; Neurologist and Physical Therapist to St. Anthony's Hospital

FOR many years I have employed physical measures in the treatment of cardiac diseases. It has in fact formed so important a part of the management that I would hardly know how to do without physical therapy in such cases.

A correct diagnosis in cardiac disease is a paramount necessity. Care should be taken to elicit a complete clinical history of the patient as well as the personal history. The personal history of a patient gives us a perspective of his ailments, his mental conflicts, and what influence these may have had upon his life. It is part of the chronology of the present illness.

Start your history at the time the patient last considered himself to be in *really good health*, and then accurately and minutely trace the present illness to the time he enters your consulting room for the treatment of the lesion. Search for infections, past and present; acute or chronic.

Sources of Infection

In cardiac diseases infections from two sources take precedence; those arising from the dental system and from the throat, pharynx, sinuses and tonsils.

A patient may have had the tonsils removed and the throat may have been skillfully cleaned up, but this does not bar infection of a *tonsillar character*, so to speak, due to the fact that the tonsil is not the only glandular structure in the throat.

Always consider *syphilis*, which has a predilection for the heart and vascular system. Merely asking a patient whether he has suffered from luetic infection is not sufficient. The patient may be markedly luetic without being aware of it. Make a thorough examination.

Skill in diagnosis is required to uncover syphilis in women. Remember that a negative Wassermann test may be present in a

patient who has had or in whom you can diagnose syphilis; and that there is nothing so deceiving and uncertain and often valueless as a negative Wassermann test.

Never forget, in dealing with cardiac disease, to look for an aortitis or ectasia. Dilatation may be one of the cardinal signs of a specific lesion. Syphilis is an extremely common underlying cause of cardiac disease. An active infection, streptococcal or otherwise, may easily be superimposed. You may at times wonder why the heart and aorta do not get better. Proper treatment directed to the underlying chronic infection will assist in bringing about restoration.

Make a thorough, painstaking physical and neurological examination, a careful fluoroscopic study of the heart and aorta.

In cardiac disease never forget the psyche of the individual. Men who use physical therapy are apt to become materialists, forgetting everything except the conditions that they can treat with physical therapy.

Try to relieve every focus of infection.

Rest and Exercise

Two of the most important of the physical measures in the treatment of cardiac disease are rest and exercise. It is not uncommon for doctors to order a patient to bed simply because he has cardiac disease. This is poor practice. At times ordering patients to bed increases rather than decreases the trouble. The heart is a muscular organ; it should be trained, muscularly, to do as much work as it reasonably can, so long as this does not tax the musculature. Have a cardiac exercise; rest; exercise; and rest again. This is often advantageous.

I shall never forget, as a young man, observing in one of the London hospitals what was known as Sir Andrew Clark's "Staircase Treatment" of heart disease. I have used this treatment ever since—and

that is nearly thirty-five years. Start the patient going up and down the steps sideways. He cannot go fast and the strain is lessened. We can gradually develop the cardiac musculature by exercise, just as we would that of the arm.

Dieting

Dieting is not necessary for the heart disease, but it may be required to correct any underlying conditions that may be present. The intake of water must be determined. The heart is a pump. If you flood that patient's body with water, the heart must pump more fluid. This may do the patient harm.

Hydrology

Hydrology has for many years been one of the most successful means of combating organic heart disease. If the patient is confined to bed, apply an ice-bag to the precordium. Ice applied to the precordium stimulates the heart and causes it to beat slower and stronger. It is the hydriatic digitalis. This is accomplished by reflex action. The impression of the cold upon the peripheral terminations of the nerves over the heart and correlated to the heart, produces this reflex effect. If you let the ice-bag remain on longer than half an hour, you will have refrigerated the nerves and reflex activity ceases; instead of being sedative and strengthening, it becomes an irritant.

Where the ice-bag is used continuously, remove it every half hour and apply a very hot towel or fomentation over the heart until the skin is reddened. This restores sensitivity to the skin, and the ice-bag will again act reflexly.

I shall merely mention the Schott method of treatment, by carbon dioxide baths. It is a classic method. The details can be found in my book on hydrotherapy. When the patient is ambulant, commence active applications of water in the shape of showers, needle baths and douches, and in this way build up the heart and strengthen the circulation.

Diathermy

Diathermy is undoubtedly one of the best methods that we have of treating muscular diseases of the heart. It is of less value in valvular lesions. It is of great value where we have to deal with cardiac pain, as in angina pectoris. In valvular heart lesions it helps, but only in conjunction with other means of treatment, notably the administration of digitalis.

As the second-oldest physical therapist practicing today in America (I am just starting my thirty-seventh year), I do not forget that there are other things that we can use in conjunction with physical therapy that reenforce its effects. Hydrology enhances the activity of nearly all kinds of chemical or medicinal treatment. The reason is apparent. Its physiologic action is to increase the circulation, increase absorption, increase elimination, stabilize nerve action, etc.

The Static Treatment

Another physical method of value is static electricity. It is next to diathermy. Use the wave current, with two large Leyden jars as condensers. The spark crossing the gap should be heavy, sharp and clean-cut so that we get a vibratory influence from the administration. Place the electrode over the seventh cervical vertebra. This will contract the area of the heart, and slow its beat.

Concuss the seventh cervical vertebra. In bedridden cases you can practice this concussion with an ordinary piece of metal or a pleximeter and a tack hammer or a rubber hammer of any kind. Take an ordinary piece of strap iron an inch wide and six or eight inches long; wrap it heavily for an inch at one end with adhesive, and at the other end for about three inches. This will be comfortable for the hand. Percuss for one-half minute; rest half a minute; repeat four times. Sensory impressions from the periphery soon become dulled by the concussory effect of the tapping; resting gives the surface skin an opportunity to take up the reflex again. It also gives the heart a chance to rest a bit itself, because intermittent exercise is better.

Massage

Massage is a very valuable measure in the treatment of cardiac diseases, and bedridden patients with cardiac disease should always have it. Massage of the manual variety, during the bedridden period, and massage of the mechanical or so-called Swedish variety may be employed when the patient is ambulant.

This much may be said of physical therapy in cardiac disease: It may be employed without interfering with any of the established methods of treatment; in truth, supplements and aids other treatment to a marked degree.

Pituitary Disease

By J. S. LANKFORD, M.D., San Antonio, Texas

VALUABLE evidence of endocrine pathology and the possibilities of organotherapy are accumulating, based on clinical experience rather than on animal experimentation. It is not meant to minimize the great service of vivisection in medical progress, but the comparison between the normal animal and the pathologic human being cannot be entirely satisfactory. There is too much variance and too much difficulty in arriving at the truth.

When a typically bronzed, emaciated patient dies from asthenia, and the post-mortem reveals serious disease of the suprarenals, we have a positive and unmistakable evidence of endocrine disease. When the typical case of myxedema with rough, dry, thick, edematous skin and swollen glands; constipated, toxemic, stupid, almost without mentality, is relieved of these symptoms almost miraculously under thyroid feeding, a plain truth has been clearly demonstrated.

Pituitary disease now stands out as plainly proven as Addison's disease and myxedema, but there are many varieties. Clinicians of large experience are able almost to classify some of these but there are very few pure types. Case 2, reported here, is nearer a pure type than any of the others.

Persistent, agonizing headache in the temples and through the brow always suggests the pituitary. The skin is peculiarly smooth and dry; dermatographia is absent unless there is a thyroid complication; the bowels are constipated; blood pressure is low; function is poor; impairment of the blood is common, especially is lymphocytosis a notable feature.

The exasperating headache may be due to deformity of the sella turcica with pressure; it may be on account of hyperplasia of the gland with interglandular pressure; it may be due to tumor. Either condition may or may not be due to inherited syphilis.

This disease, when hereditary, seems to have a special affinity for all those structures derived from the ectoderm—the skin and its accessories, the brain and nervous system, the pineal gland, part of the suprarenals, the posterior part of the pituitary and other structures about the third ventricle, as well as all the organs of special sense, particularly the eye.

If the condition is syphilitic, the knee reflexes are usually lost. Often there is neurochoroiditis of a serious nature or other eye complications according to Hilgartner of Austin. The Wassermann test is usually negative and should be disregarded. The condition may be hypo- or hyperpituitarism, or dyspituitarism. It is quite common to find the other endocrines involved and treatment must be adjusted accordingly.

The results of treatment in some cases are quite as spectacular as those following thyroid feeding in myxedema or cretinism.

The following cases will, it is believed, be of interest. Two of the cases, under observation for several years, show remarkable results of treatment. The other three have come under my care recently and the results of treatment can only be conjectured.

Bilobar Pituitary Insufficiency

Case 1.—H. P. English; age 12 years; height 4 feet, 8 inches; weight 118 pounds.

Family history.—Good.

Personal history.—Healthy child, no serious infectious disease. Developed normally until, at seven years of age, he fell eight or ten feet and landed on his head. Soon up, uncomplaining and active, but never normal afterwards. Had much difficulty with his studies, failing usually. Was morose, high tempered, despondent, subject to violent headaches. Last two or three years has taken on weight very rapidly but has not increased proportionately in stature.



Fig. 1

Physical Examinations.—Undressed for examination, the patient reveals the typical feminine form in breasts, hips, and legs with some notable adiposity about the umbilicus. Penis and testicles arrested in development, perhaps at the time of accident. Skin is smooth and dry. Heart, kidneys and other organs and functions found normal but somewhat sluggish. Blood pressure 95/70. The blood examination revealed moderate lymphocytosis, Wassermann test negative. Carbohydrate tolerance greatly increased. X-ray of sella turcica (Fig. 1) shows overlapping of clinoid processes and evident pressure upon the pituitary.

Treatment.—Special exercises; decided reduction of carbohydrate foods; increase of proteins. Pituitary tablets (whole gland), one grain, three times a day before meals. Pill "mixed treatment" (containing small doses of mercury, iodide, arsenic and nux vomica), one three times a day after meals.

The results on organs and functions, and on the temper and mentality were prompt and decisive, and the headaches vanished. During the next school year the improvement continued and the feminine form disappeared to a large degree, under the treatment and under military training. He made his grades easily and the condition was so good that treatment was used interruptedly during the second year. At the end of the second year he was in good form physically and was leading his classes, and the testicles and penis had developed rapidly. Within five years he graduated with distinction and was in excellent form as to physique, mentally alert and free from all evidence of disease. He has remained well.

Post-Pituitary Insufficiency

Case 2.—Mrs. D. J.; French; age 34 years; height 5 feet, 2 inches; weight 212 pounds.

Family history.—Negative, except that her father died of diabetes mellitus.

Personal History.—Born small and developed in a natural way until seventeen. No history of infectious disease or accident. At the age of seventeen, being so situated that there was a great temptation to eat sweets and drink sweet sodas, she indulged freely and obesity began. Menstruation began normally but soon became scanty. Now there is just a stain for a few hours for one day. Mother of one child. Had five successive miscarriages since the normal birth, suggestive of syphilis. Is a great sufferer from headaches and is very emotional. Has an enormous appetite for starches and sweets and carbohydrate tolerance is high. Recently her heart has been troubling her with irregularity and pain.

Physical Examination.—Her obesity is distinctly pituitary in character; great folds across the abdomen and great breadth of hips. Organs and functions are fairly normal except that the blood pressure is low—95/70. The skin is peculiarly smooth and dry; the bowels are constipated, the urine findings are satisfactory, the phthalein efficiency being at a good point. The blood is not especially impaired, except moderate lymphocytosis. Wassermann test negative.

Ovarian function very low; amenorrhea and frigidity marked. The patellar reflexes are lost. The sella turcica is normal. It is not known how much can be done to correct these conditions, but a strong effort will be made, by reduction of carbohydrates and an increase of the protein foods; by pituitary and ovarian treatment; and by every kind of exercise that will reduce weight and increase muscle strength and bowel function.

This case is reported because it is especially interesting from the standpoint of high mentality compared with the very low mentality of Case 1.

Dyspituitarism, Anterior Insufficiency Predominating

Case 3.—H. M.; Irish; age 7 years; height 42½ inches; weight 38 pounds.

Family history.—Good, except that the mother had exophthalmic goiter before the patient was born. Abel, in a very excellent article (*Johns Hopkins Bulletin*, Jan. 1926), calls attention to the fact that where there is an over-active gland in the mother it may lead to disability of one of the related glands in the progeny. The mother had, at the time of the goiter, badly infected tonsils, and after the patient's birth she had puerperal sepsis and the patient probably got a bad start.

Personal history.—At six months of age, she had influenza and a number of convulsions. At eighteen months, the tonsils were giving much trouble and tonsillectomy was performed. Did very well after that except that growth was slow. On January last had pneumonia with influenza.

Physical Examination.—Her body is symmetrically developed but growth has been decidedly limited. Kyphosis is a feature, with flat chest and protuberant abdomen. Skin and sclerotics show a tendency to sallowness. Skin is exceedingly smooth and dry. Heart and kidneys normal. Functions reasonably good, but the blood pressure is low—60/40. There is a moderate lymphocytosis; the Wassermann test is one plus. General endocrine insufficiency is a marked feature, but the deficient bony growth indicates especially insufficient activity of the anterior part of the pituitary body. Reflexes dull. Headaches frequent. Mentally alert. Urine is normal chemically and microscopically and the phthalein efficiency is at a high point. Sella turcica (Fig 2) normal. Presented for comparison with cases 1 and 3.

It is believed that pituitary treatment, full vitaminic diet and proper exercise will result in satisfactory growth, as in Case 4.

Bilobar Pituitary Insufficiency

Case 4.—D. J.; Austrian Jew; age 14 years; height 4 feet, 9 inches; weight 84 pounds.

Family history.—Reveals many cases of degenerative disease.

Personal history.—Had very severe spell of whooping cough in early infancy and coughed for several winters afterwards. Has been inclined to indigestion and constipation. Has been morbid, ill-tempered, despondent and had much difficulty in his studies. Suffered severe headaches. Termination test was made in this case at the



Fig. 2

beginning and he was approximately the age of eight, mentally. The organs were functioning poorly, though free from disease. Patellar reflexes abolished. Blood pressure low—80/60.

Physical Examination.—His body presented the very distinct feminine type—full bust, small waist, feminine form of hips and legs, gonad development very defective. Testicles small and the right testicle most of the time undescended. Skin extremely smooth and dry. Urine and phthalein test satisfactory. Blood not greatly impaired. Lymphocytosis a feature. Sella turcica not studied.

The father had been extremely anxious about his son on account of his dullness and all the indications pointed to arrested growth of the sexual organs and of the mind.

Treatment.—Patient was given special exercise, designed to stimulate the spinal cord centers of the endocrines and put on pituitary feeding with continuous gentle stimulation of the liver with 1/5 grain of calomel at bedtime. This was kept up for nearly a year. When he returned in a year, the Termin-Binet test showed fifteen years of age; he had grown six inches and gained twenty-five pounds. He was in excellent condition and all the organs and functions were working well. The improvement is still maintained.

Anterior Hypopituitarism with Beginning Gigantism

Case 5.—P. A. American; age 12 years; height 5 feet; weight 66 pounds.

Family history.—Father died, after two years' illness, with nervous disease, and it

was known that he had a positive Wassermann.

Complaint.—Violent, agonizing, recurring headaches; substandard strength and health.

Personal history.—Born a healthy baby but was noticeably nervous. Had "black measles" at three. Tonsils gave much trouble after measles and were removed at five years of age and found decidedly infected. In second dentition the palate was not well formed and the teeth had to be straightened. Had influenza two years ago. Much inclined to constipation the last five years and has suffered desperately with headaches, through the temples especially, with nausea and vomiting at times. Bony structures have grown rapidly but she is thin, almost emaciated. Mentally keen and alert.

Physical Examination.—Termin-Binet test not made. The skin is very smooth, velvety and dry. The heart action is over-rapid and the temperature subnormal; blood pressure 80/60; the urine findings are satisfactory. The phthalein is at a high point. The relative blood acidity is high, due largely to calcium deficiency. The blood is not far from the normal except that there is decided lymphocytosis and two plus Wassermann test. Heart, kidneys and other organs in good condition. Heart-hurry is quite noticeable but is apparently due to nervousness as it quiets down on complete rest. Arm, epigastric and umbilical reflexes dull. Knee reflexes lost. X-ray (Fig. 3) shows deformity of the sella turcica with anterior and posterior clinoids overlapping producing pressure and evidently excitation. X-ray of hands—wrists to finger-tips—(fig. 4) shows broadening of the joint structures with diminished density of bone. Measurements show comparative overgrowth of long bones.

The interrelation of the glands is of the greatest promise in this case. The thyroid is now rather overactive, probably an effort of nature to compensate. It is hoped that by suitable antisyphilitic treatment; by activating the adrenals, ovaries, and other endocrines; by diet, special exercise and judicious management, operation may be deferred or voided, but it may become imperative.

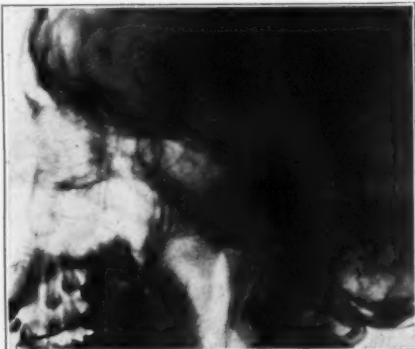


Fig. 3



Fig. 4
Summary

In all these cases, the temperature and blood pressure were found subnormal; the

functions and blood impaired; the bowels constipated from atony; and autotoxemia a feature. Headache through the temples and lost knee reflexes were also common to all of them.

These cases are reported in the hope that other physicians, meeting with the characteristic headache, may investigate thoroughly and possibly find some relief for this class of desperate sufferers.

It is surprising what antisymphilitic treatment will do in some of these cases when the Wassermann test is negative. There is a sub-Wassermann syphilitic state of the blood which is of vast importance, especially that from inheritance. A greater surprise still is the relief of the agonizing headaches following pituitary treatment.

Notes from the American College of Physical Therapy

Reported by GEORGE B. LAKE, M.D., Chicago

ANYONE who happened to be so far behind the times as to feel that physical therapy is an experiment would have been thoroughly disabused of that foolish notion if he had attended the fifth annual session of the American College of Physical Therapy which, with the associated Clinical Congress, occupied the week of October 18 to 23, at Chicago. The paid registration at that meeting ran between 600 and 700 and some of the most prominent men in the profession were on the program. The distinguished guest of the meeting was Dr. Franz Nagelschmidt, of Berlin, "the Father of Diathermy". This organization bids fair to take rank some day—and that day is not so far off—with the College of Physicians and the College of Surgeons.

It would be as hopeless to try to cover everything that went on as it would be to see all of the acts at a three-ring circus. Three sections—medicine, surgery and urology, and otolaryngology—were running programs at the same time; to say nothing of round-table talks, clinics and the manufacturers' exhibits. The papers read would fill several volumes. They have promised us the privilege of publishing some of them.

We rushed around, here and there, and picked up some valuable ideas for our readers, and here they are:

Dr. J. S. Coulter, retiring president of the College, among other valuable suggestions, urged the establishment of standard requirements for physical therapy technicians. This could be done by inaugurating training schools for technicians and by obtaining state laws for their control. There should be a register of such technicians, admission to which could be gained only by passing an examination to demonstrate fitness, conducted by a competent board of examiners.

Dr. Disraeli Kobak, the incoming president, in his installation speech, emphasized the fact that the successful application of physical methods in the treatment of disease must rest upon a sound basis of fundamental medical training—that rational therapy must always be preceded by an adequate knowledge of pathology and by an accurate and well-considered diagnosis.

The "Physiatrist" must study his cases carefully and guard himself carefully against rash and premature enthusiasm, lest he do his patients and his profession serious harm.

A number of medical schools in the Middle West have introduced the teaching of physical therapy as a part of the regular curriculum. Prominent among these are Rush Medical College (Univ. of Chicago) and

Northwestern Medical College, in Chicago; the Medical Department of the University of Indiana, at Indianapolis; and of Wisconsin, at Madison. Harvard and other eastern schools have also recently established similar departments. This will assist in bringing this branch of medical science up to a high standard.

Static Electricity

By Dr. Norman Titus, of New York City

The static spark was the first form of electricity employed in medicine, having been in use as early as 1650, while galvanism was not discovered until 1800.

The effect of the various methods of giving static electricity are *mechanical*, as distinguished from the *chemical* effects of galvanism and the *biologic* reactions produced by ultraviolet rays and diathermy.

While the use of the static machine has never died, in this country, it was taken very, very sick twenty-five or thirty years ago; so much so that the presence of such an apparatus in a physician's office almost characterized him as being a quack. It is now coming back into favor, as we have found that no other machine will take its place.

Faradism is steadily losing ground and will probably soon disappear altogether as we have other modalities which will do the same work better.

The static current is unidirectional and has extremely high voltage (1,000,000 volts or more) but almost no volume (less than 1 milliampere). It is, therefore, harmless, except that it may frighten the patient if used indiscreetly.

The man who uses a static machine must know how to test its polarity and how to use it, remembering that the positive pole is sedative and the negative irritant. If you put the patient on an insulated stool and connect him with the positive pole you will fill him up with electricity all over, like a Leyden jar. With the negative pole

grounded, you can then *draw off* the electricity from one point. If you reverse this polarity you are pouring electricity into him from the electrode, as the current flows from positive to negative.

There are three static modalities: the Morton wave, the static spark and the brush discharge or *effleuve*. All of these act by driving out inflammation and exudates and will do all that can be accomplished by massage and do it much more quickly. In using the wave and the spark, the patient is connected with the positive pole; for the *effleuve*, to the negative.

The Morton Wave washes out congestion from muscles, joints and other tissues. It is

good for treating sprained ankles, synovitis with effusion, superficial ecchymoses (black eyes) and the like. It should be followed by static sparks for best effects. All static treatments are *contraindicated* in deep hemorrhage and infections. Tabes and cerebral hemorrhage cannot be improved, though the pains are sometimes relieved.

The largest part of physical therapy is good medical commonsense. We must

use a *combination* of modalities. If you induce hyperemia by diathermy it is well to complete the treatment by driving it out again by static or massage.

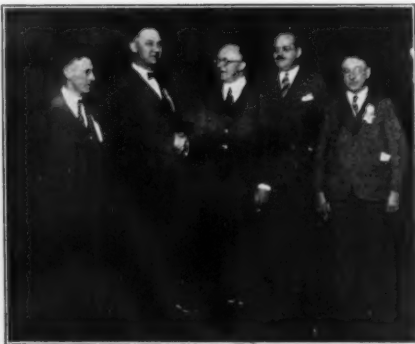
Static machines take up a great deal of space, are heavy, expensive and more or less temperamental; but, if carefully used, they are very durable, the cost of upkeep is negligible (you can keep them dry with a can of Babbitt's lye, two or three times a year) and they are worth all the trouble and expense.

The Treatment of Neurosyphilis

By Dr. Curran Pope, of Louisville, Ky.

Syphilis never dies: It sleeps.

All drugs used in the treatment of syphilis are salts of the heavy metals, having large molecules, and penetrate the nervous tissues only with the greatest difficulty.



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Some Prominent Physical Therapists Who Attended the Meeting of the College. Left to right: Dr. J. A. Giesy, Salt Lake City, Utah; Dr. R. W. Fouts, Omaha, Nebr.; Dr. Franz Nagelschmidt, Berlin, Germany; Dr. Norman E. Titus, New York City; Dr. A. David Willmoth, Louisville, Ky.

In treating neurosyphilis it is best to hospitalize the patient if possible. Get him in the best possible condition by general hygienic measures. Secure free elimination and reduce local edema by the free use of salines—dissolve 2 ounces of Carlsbad salts in 8 ounces of water and add 8 ounces of concentrated Pluto water; give freely.

Give one or two intramuscular injections weekly of mercury (preferably the red iodide) or bismuth (not both).

Once a week give an intravenous injection of neoarsphenamine, giving an intravenous injection of 30 to 50 cc. of 10-percent glucose solution several hours before (to reduce edema and counteract local acidosis), and following it *immediately* by a diathermy treatment to the affected parts. This, in turn, may well be followed by galvanism, placing the negative pole as near as possible to the affected parts.

If these physical measures are employed with judgment and in sufficient dosage they seem materially to enhance the effect of the chemotherapeutic treatment.

Diathermy Technic

By Dr. D. Frank Knotts, Chicago

No intelligent treatment, by physical or other methods, is possible without an accurate diagnosis, which requires an examination of the *entire patient*, not merely the part which seems to be involved. Patients come desiring treatment for "rheumatism", "neuralgia" and various other things. Make a *full examination* before treating local signs and symptoms.

In case of fibrosis of the elbow, I obtained no results until the tonsils were removed. In one trying case of neuritis, relief waited upon the clearing up of a severe toxemia from the colon; and in another an antral infection was at the bottom of the trouble. High blood pressure is frequently due to infections of the tonsils or colon.

In treating hypertension by means of autocondensation, if you have the patient hold the small electrode in the hands, they may become very tired and the contact will be irregular. Put a small, mesh electrode (about 4x6 inches) over the right hypochondrium, in the region of the gall-bladder. In this way you have good contact and also produce a direct stimulation of the biliary organs, the duodenum and the head of the pancreas.

In giving all sedative treatments, the current must be turned on very gradually after the electrodes are in place, in order

to avoid shocking and frightening the patient. Every electrical machine should be carefully tested, before connecting it to the patient, to be sure that all controls are in neutral position, for carelessness may result in severe shocks.

Use rubber sponges to hold your electrodes in place, especially when the patient has to lie on them, as they are soft and make good contact. Run the cord through a hole in the sponge and attach it to a small metal plate on the surface in order to make the contact (see Fig. 1). This is so simple that anyone can work out the details. Sponges

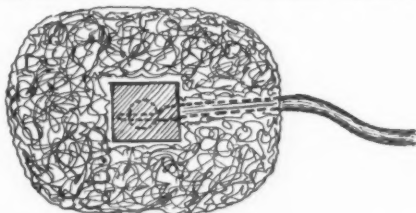


Fig. 1

of various sizes can be purchased at almost any drug or supply store.

Scar tissue has a poor blood supply and therefore heats up quickly, so do not place an electrode directly over a scar. If you must treat that particular area, place a small electrode on *each side* of the scar and attach them to a single, bifurcated cord.

In treating or removing tonsils by diathermy I do not infiltrate the tissues with a local anesthetic, but find that I get satisfactory anesthesia from a single topical application of a 2- or 3-percent solution of butyn.

Skin Blemishes

By Dr. Herman Goodman, of New York

I shall not speak of skin diseases, but of such blemishes as hypertrichosis, moles, warts, naevi, etc.

In treating *hypertrichosis* by galvanism, remember you must reach and destroy the *papilla* ("root") of the hair or you do no good. Select your cases carefully for this work and do not attempt to treat those which do not offer good prospects of a cure. Do this work in the morning when you are fresh and your eyesight is keen, for it requires steady hands and good vision.

Do not attempt to treat slate-colored moles; they are dangerous. If the mole is pigmented and hairy, take out the hairs first and then treat by electrodesiccation, galvanism with multiple needles or carbon dioxide snow.

Treating telangiectases is something like removing hairs. Insert a fine needle into the dilated vessel as far as convenient and give it just a flash with the bipolar diathermy current. This will destroy the vessel.

In treating verrucose naevi, if you go down to the papillae you will get a scar. The positive pole of the galvanic current acts well in these cases. In vascular naevi the high-frequency needle and carbon dioxide snow are effective.

Small patches of *xanthylasma* can be removed by galvanism. Very fine needles are required. If you can not buy them fine enough, work them down to the desired size on an Arkansas stone.

Ordinary warts may generally be removed by the Oudin current, using a very short spark. The x-ray is best for treating multiple, juvenile warts.

In removing all types of skin blemishes, be careful not to take them off while you are working or you will do too much. The effects of treatment continue for some time, and you must learn by experience just when to stop in order to get the best results.

For all cosmetic work the instruments used by ophthalmologists are ideal, and those who do many such operations would do well to purchase a set of eye instruments.

Neither pole of a galvanic current is antiseptic. Needles used in this work, especially that at the negative pole, should be carefully sterilized before use to avoid infections.

X-Ray and Light Therapy in Tuberculosis

By Dr. R. T. Pettit, Ottawa, Ill.

Without a thorough knowledge of pathology no accurate diagnoses are possible, especially in tuberculosis. In studying x-ray plates for diagnosis, peribronchial thickening should be disregarded. Unless there are *parenchymal* shadows, no active tuberculosis is present.

There are two general types of tuberculous infections of the lungs, and the physician must determine which type is present, for the type determines the treatment.

The *productive* type is characterized by sharply circumscribed lesions in the acini. It is never very acute; progresses slowly; and tends to calcify and heal.

The *exudative* type shows diffuse and spreading lesions; is acute and rapidly progressive ("quick consumption"); and tends to caseate and form cavities. This type must not be overtreated, the most important measure being rest.

In treating tuberculosis, four things are fundamental: Fresh air, abundant and well-chosen food, rest and phototherapy. All other methods of treatment are adjuncts to these.

The indirect action of sunlight is most important and the general light bath produces larger results than any local application. Under general phototherapy the muscles will enlarge without exercise. Sunlight is analgesic. If patients tan well the prognosis is good and exposures should continue even after heavy pigmentation has occurred.

X-rays form a good adjuvant to the treatment of *selected* cases. The doses must be very small (always short of erythema), accurately measured and given by the cross-fire method, to insure uniform distribution. The x-rays are not for practitioners, but must be given by men who are especially trained for this work and who are fully equipped to do everything necessary. In careless or untrained hands they are dangerous.

Diathermic Treatment of Nervous Diseases

By Dr. Franz Nagelschmidt, Berlin, Germany

The effects of diathermy are much more than simple heat. The functions of the body are stimulated.

In treating most nervous diseases, a high-tension current should be used—100,000 to 120,000 or more volts—with only 2 or 3 milliamperes of current. The high-tension *effluve* is useful in many cases.

In *neuralgias* it is of no use to treat the nerve until you have found the cause and removed it.

In *sciatica*, place the patient in a prone position with the large electrode over the abdomen, and then with a rigid, active electrode, press down into the muscles so as to get as near as possible to the affected nerve. A similar method is used in treating other nerves. Massage all muscles near by with a glass condenser electrode filled with graphite or powdered metal.

In true cases of *trifacial neuralgia*, attacks of pain may be brought on reflexly by facial movements or by the lightest touch upon certain small areas of the skin or mucous membranes. These reflex points must all be located by a minute examination of the entire trigeminus area, which may take 2 or 3 hours and requires great patience. If we touch one of these areas directly with an electrode, agonizing pain will result. We must work around them and

up to them gradually. If we can touch them for a moment with the electrode without provoking an attack, the pain will be gone.

Polyneuritis is an acute infectious disease and the treatment consists in producing "artificial fever" by means of the auto-condensation couch.

For *headache*, place the patient's feet on a metal plate and give a high-frequency "douche" or *effleuve* to the top of the head.

Diathermy will not cure the central lesions of *tabes*; but many of the symptoms of this disease are not of central but of sympathetic or parasympathetic origin and can be relieved by diathermy. The high-frequency douche frequently ameliorates the shooting pains; and the incontinence of urine and feces can be helped by electrodes in the bladder and rectum—though the *tabes* itself is not improved.

The vegetative nervous system and the endocrine organs influence each other profoundly and may both be influenced by various physical therapeutic modalities. The high-frequency current may be applied locally or generally for producing these effects.

Hypothyroidism can frequently be benefited by diathermy, and so can deficiency of pancreatic activity. It works well also in oligomenorrhea or suppressed menses and in other hypotonic pelvic conditions.

Spermatorrhea and sexual asthenia are benefited by an intraurethral electrode; and

diathermy to the testes and prostate has been known to cause a return of sexual power and fertility in cases of *azospermia* from x-rays.

Cases of *anaphylaxis* and *asthma* are often benefited after a time and some yield rather promptly. In these and other affections of the vegetative nervous system, the dosage of diathermy can be accurately controlled, while the effect of drugs cannot.

At the banquet on the evening of October 20, Dr. G. Henry Mundt, of Chicago, President-Elect of the Illinois Medical Society, emphasized the fact that this and all similar societies are subsidiaries of the American Medical Association, and that the *County Medical Societies* are the foundation of all medical organizations. He urged all physicians to take an active part in the work of the county societies.

Dr. Harry E. Mock, of Chicago, Chairman of the Council on Physical Therapy of the A.M.A., told what that Council is doing toward the standardization of physical therapy apparatus and procedures, and warned all concerned against overenthusiasm and half-baked conclusions from insufficient experience. Physical therapy has now taken its place, along with medicine, surgery and obstetrics, as a recognized branch of the healing art and we must see that nothing happens to bring it into disrepute.

THE only excuse for experiments in medicine lies in the needs that arise directly in the patient; and the only excuse for an experiment in the laboratory is when it is possible to create there conditions which are much simpler than those which are met with at the bedside, and which furnish us with solutions for bedside problems. The laboratory plays the role of the ham in the sandwich; it stands as the layer between the need met with in the patient and the final solution by application upon the patient.

—Dr. A. D. Hirschfelder.

The Phosphatic Index

By J. HENRY DOWD, M. D., Buffalo, N. Y.

THE human body consists of cells made up of gases, fluids, and solids, all of a chemical nature. Every cell can be seen with the aid of the microscope. But there is one part we cannot see. I refer to the mind which is a function of the soul.

Bone, flesh, and the fluids may become diseased, such disease being termed organic in nature. But when the mind becomes involved, it is generally of a functional nature; that is, there is no underlying pathologic condition present.

The mind may be said to be the director of life—every thought and every action has its origin there. In speaking of the two recognized divisions of the mind—the conscious and the subconscious—one authority has said that 90 percent of all impulses arise from the subconscious mind.

We are born with the subconscious mind or character and this is governed entirely by hereditary instincts or pre-acquired knowledge and determines the nature of our reactions to the circumstances of life.

The conscious mind is controlled by knowledge and will. For instance, a person may have the impulse to steal, but the conscious mind comes into play and says, "Don't! You will be arrested and have to suffer for it." It has learned by experience or instruction that stealing is a crime, punishable by imprisonment and, under normal conditions, this knowledge will stay the hand.

Present-Day Ills Due to Wrong Living

A watch has a balance wheel and an engine has a governor. Other machines have similar controls to keep them in balance. There may not be a human balance wheel that can be located, but something has gone sadly askew during the past few years, for today one finds many people who, as one author puts it, "do not know whether they are coming or going."

This might specifically refer to some members of the teaching staffs of our medical schools today. When a young man, after four years spent in obtaining a medical education, has practically never heard of digitalis except what his mother has told him—she had been using that drug for heart trouble—what can be expected from him when he feels a rapid, intermittent or irregular pulse and listens to a mitral murmur? Of course, he is not to blame. If a teacher in instructing the child in its A-B-C's leaves

out the Z, the child does not know there is such a letter and could not be expected to spell zoology or coryza.

Of course, we must expect fads in medicine the same as we find them in clothes or foods. The American people want changes, or as some would have it, thrills. But there is a fundamental principle we cannot ignore. Man today consists, as he did a thousand years ago, of material, to keep which alive and functioning necessitates the taking into the body of nutrition in crude form which by the processes of digestion, assimilation, and metabolism is converted into chemical compounds suitable for the body's use.

One prominent authority has said that fully 20 percent of the children of today are underfed. To this might be added the 50 percent of adults who are in the same condition at the present time. The cause is obvious. Some years ago a wave of prosperity swept over the country, but all were not affected except in a minor degree. One of the greatest impulses of the subconscious mind is mimicry and as the conscious mind is always in a state of susceptibility to suggestion, why should not the less prosperous person try to do as he sees others doing? There is no question that they do so, and we see people spending money for luxuries at the expense of their own health. A state of financial intoxication exists, with the life of the individual mortgaged to produce the finances.

The death rate from tuberculosis has been reduced about 50 percent in the last twenty-five years; epidemics of infectious diseases have practically vanished; but the mortality from cardiovascular conditions has increased fully 60 percent, due chiefly to the mode of living of the present generation which crowds two hours into one and gets insufficient nutrition.

The secret of the successful treatment of the individual who is ill is first to make the diagnosis and second to remove the cause. Local foci of infection are not the cause of all diseases. Nutrition for the blood, muscles, bone and, above all, for the nervous system is the most important consideration in the treatment of all diseases, whether they be functional or organic.

We know that results will follow the administration of iron when the red cell count is low or there is a deficiency of hemoglobin;

and the same can be said of lime in the treatment of rickets. With the nervous system we can obtain equally satisfactory results; and we have a test for nerve nutrition and function which is as sure as are those of the blood, bone, or muscles.

Phosphorus Metabolism

Phosphorus, lecithin, and nuclein are not only the chief foods of the nerve cells, but are found in every cell. One of our great scientists has said, "When all the phosphorus is taken from the earth, the human race will cease to exist."

The substances mentioned, especially phosphorus, are found in practically every form of food. After their function has been performed, they are cast off as end products in the feces and urine, in the form of phosphates.

Phosphates may appear, in the urine, in two forms: the earthly and the alkaline. The earthly phosphates—calcium and magnesium—may be found in freshly passed urine or may appear on boiling. These never occur as crystals and, unless there is great destruction of bone, they are rarely found in excessive amounts. They should be filtered out of the urine before taking the phosphatic index.

The alkaline phosphates (and the ones that concern us are the acid sodium and potassium phosphates) occur as crystals, fern-like in shape, varying according to the condition of the nutrition of the nerve cells. In about 30,000 examinations of the urine made by me (and this has been confirmed by Dr. Dweitz with about 25,000 examinations), these crystals have never been observed except after precipitation with the alkaline solutions.

About two Grams of phosphates in all forms are eliminated by the kidneys daily. They are more abundant after eating meat than after a vegetable diet. They are increased after the midday meal until about midnight, when they commence to decline. This was to be expected because the more calls for energy as the day develops, the more end products are formed; and we find the phosphates at their lowest ebb early in the morning after a night of rest.

We may, I think, assume that the nerve cells are capable of absorbing sufficient nutrition not only for the daily calls, but that they accumulate a reserve for cases of emergency when, from diseases or other cause, sufficient food cannot be taken, yet all functions must be maintained. Remember, it is the nervous system that furnishes

the motor power for all organs. There is an increase in the phosphates eliminated when there is hyperactivity or irritability of the nerve cells, and if this is carried to an extreme degree it will sooner or later deplete the reserve, producing a condition known as neurasthenia.

Taking the Phosphatic Index

The method of ascertaining the alkaline phosphate output is simple, as described by Clemesha (*CLINICAL MEDICINE*, September, 1926), Smith (*Fla. State Journal*), and others.

Use the second urine passed in the morning, preferably about 11 o'clock if possible. Fill the phosphatometer (a cylindrical glass tube, graduated to show plus or minus 50 or 100 percent—Fig. 1*) with urine to the point



Fig. 1. The Phosphatometer

marked "U"; add test solution† to "S"; shake thoroughly several times to cause complete saturation of the urine with the alkali; and set aside for ten minutes. This mixture should turn milky at once, and the crystals will sink, according to their specific gravity. If there is want of nutrition they will fall very slowly, or not at all. The reading should be made at the end of ten minutes. If it is above "N. P." (normal precipitate) it is considered as plus, and indicates that there is an increased nerve cell metabolism due to irritability or to high nervous tension, as in hysteria.

Although the precipitate may be quite dense, it will not fall at times. This is due to the low specific gravity of the crystals and shows a lack of nutrition. Where they do not fall, or fall below the mark "N. P.", it shows a want of nutrition or a diminished

*Supplied by the Richardson Drug Co., Buffalo, N. Y., or other surgical instrument houses.

†Alkaline solution: Magnesium sulphate, ammonium sulphate, aqua ammonia (10 percent—the common kitchen variety); of each one ounce; water eight ounces. This is an inexpensive mixture that can be made by anyone in a few minutes, but it is well to let it stand for a few days so that saturation will be thorough.

number of cells performing their function. When this condition is found, we must expect the same result as one would find if a storage battery were producing the energy and were losing its charge. If the brain is the power behind all life, furnishing all energy, resisting power, motion, and sensation to the human body we may expect a curtailed systemic activity when some of the cells are not functioning or when a lack of nutrition is evident.

It is only human nature that an individual in pain or discomfort wants to be relieved; and they do not seem to care whether it is one of the regular medical profession or a charlatan who does the work. At the present time at least 30 percent of work which is properly ours has passed into the hands of the irregulars. Who is at fault you may judge for yourselves. That we can protect ourselves, in many cases, by simple measures, will be shown by a brief report of a few cases sent to me in consultation or which came voluntarily after others had failed.

Case Reports

The Eye.—Cases with a diagnosis of corneal ulcer, iritis, blepharitis marginalis, keratitis, styes, and like pathologic conditions have been referred to me by oculists after they felt that they had done all they could for the patient with little but temporary relief. Careful examination showed nothing systematically wrong, except a phosphatic index varying from 40 to 90 percent below normal, except in one case where it registered normal, with the "A" type of crystals (See Fig. 2). The cases with a low index were placed upon a phosphorus mixture and all recovered promptly; several have been well for seven or eight years.

In the one case which had a normal index, the urine was found to be very acid, with large amounts of indican and also urooesin. This patient was given sodium salicylate and caroid. He recovered promptly.

There may be much truth in the statement of a prominent oculist some time ago, "Eighty percent of the diseases of the eye have a cause outside the eye, and we do not know how to treat them."

Nose and Throat.—Various cases involving the nose and throat have been referred for treatment after local measures, by means of surgery, have failed. In all cases where the phosphatic index was found low, treatment with phosphorus was quickly followed by marked improvement. One case in particular was referred by Dr. Cott. He

had drained the antrum, and after a year of local treatment there was a continuous discharge. No systemic condition was found, except a phosphatic index 80 percent below normal. A mixture of phosphorus, nux vomica, and cannabis indica was prescribed, and in ten days the discharge had practically stopped without any local measures being used.

General Surgery.—Two of the most important cases falling under this heading

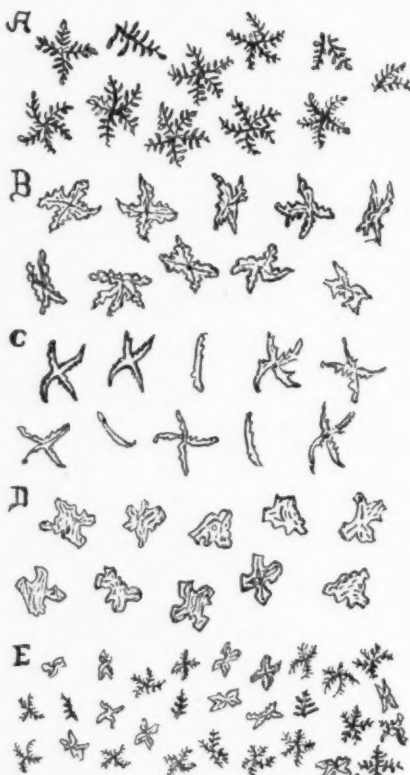


Fig. 2. Alkaline Phosphatic Crystals as found in the Urine.

A. Normal. Note well-formed fronds.

B. Showing a want of nutrition. Note saw-like condition of edges; also the lightness of the crystals.

C. Diagnostic of pregnancy between the third week and end of the third month. (Originated by the Professor of Physiology, University of Pennsylvania.)

D. Amorphous. The writer has found these sixteen times; eleven died in the insane asylum; five were melancholic and recovered. (Eliminate the use of drugs like morphine, cocaine, etc., as these will alter the crystals to the form shown at times, as will also the excessive use of alcohol or tobacco.)

E. Shows great irritation of the nervous system, as in hysteria. These appear as A or B, but very small—1/16th inch long, using 1/2 power.

were referred by Drs. Smith and Nash. Dr. Smith had removed a large tumor from the shoulder of a patient, but after a few days of apparent healing, the wound became indolent and after six weeks healing had not progressed to any noticeable degree. The phosphatic index registered 80 percent minus, with "B" type crystals. No other abnormality was found. The aforementioned prescription was ordered. In a few days granulations could be seen springing up all over the wound. In two weeks it had entirely covered over. The patient gained 25 pounds in six weeks.

In another case, a fracture that, after six weeks, showed no evidence of union, the index was found 90 percent minus. The same mixture was used and in two or three weeks there was firm union.

In inflammatory conditions, or where new tissue is to be formed, failure is due to a lack of resisting power, caused by a low state of nerve cell nutrition. In this connection it might be stated that the phosphatic index is taken routinely in all cases of pain, supposedly due to adhesions, coming under the care of Dr. James E. King, a gynecologist, in postoperative work.

Although, as Dr. B. S. Smith said in a recent article on the phosphatic index, "It should be a routine measure in all cases, both medical and surgical," it is in general medical cases, especially those classified as "neurotic," that an estimation of the alkaline phosphatic output will give the most surprising information as to the cause. One thing is certain: Local foci of infection, except in occasional cases, are simply another of the already too-numerous fads that have helped to put the medical profession in disrepute.

Nerve Nutrition and Pain

Pain is a function of the nervous system. Without sensory nerves we cannot have

pain. Nerves cannot speak, but, like the baby who, in a similar condition, cannot make known its wants when it is hungry except by crying, nerves make known their wants by pain. But, as already mentioned, even though there be a reserve for times of emergency, this reserve must not be depleted, and its excessive withdrawal is accompanied by systemic irritation as the following cases, very briefly reported, will show:

Mrs. S.—Sciatica of six weeks' standing. All sorts of treatment had been used without relief. Being seen in consultation, an index 75 percent above normal was found; otherwise nothing abnormal. She was given sodium bromide, grs. 15, in elixir valerinate of ammonia, 1 dram; to be taken in water every three or four hours. Six doses relieved the pain to a great extent. At the end of the third day it had entirely disappeared. It never returned.

Mr. G.—An almost similar condition, only of six months' standing. The pain was more or less intermittent and accompanied by marked prostration. He was tired all the time. Although in a warm room, he felt cold, and gas in the stomach, with other dyspeptic symptoms, was present. No pathologic condition was found from the urinary examination. The phosphatic index was 80 percent minus, with a few "A", but mostly "B" type crystals. A similar preparation of phosphorus, nux vomica, and cannabis indica was prescribed. In a week he seemed greatly improved. In two weeks there was no further pain. He had gained four pounds in weight and felt "full of pep", as he described it.

The condition of fatigue, gas, dyspepsia, and coldness is easily understood. There was only 20 percent nutrition in reserve. He was living directly off what was taken in by the food daily. Resisting power was low, resulting in coldness and fatigue. Motive power was also low, as indicated by indigestion and gas formation. The pain was nature's effort to inform the patient or physician that the nervous system was suffering.

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Is Treatment of Any Value in Pneumonia?

By J. M. FRENCH, M.D., Milford, Mass.

MY First Pneumonia Patient Died. This result would no doubt have been the same in any doctor's practice, but it came as a great shock to me. It brought home to me the deadliness of the disease as I had never realized it before. It brought up many problems in my mind, some of which are not yet answered.

In those days pneumonia was generally looked upon as a local disease. This case impressed me as distinctly constitutional in its nature, and as such it is now generally regarded. Also it impressed me as calling for my best efforts to obtain a thorough knowledge of the nature of the disease, and the best methods of treating it. Some people claimed then, as others do now, that the treatment makes but little difference in the average mortality, and that from one-fourth to one-third of all cases, on the average, would die under any treatment, without much regard to the doctor, the nurse, the medical treatment, or the general conditions surrounding the patient. I did not take much stock in this talk, for I had a firm belief that these things did make a decided difference. If not, what was the doctor good for?

My sympathy went out to the old man who hid himself in the closet of the room where the consulting physicians went by themselves to discuss the case of his son, whose disease had puzzled many doctors, but had been helped by none. As the father listened, he noted that they talked in terms of diagnosis and pathology, and nobody said anything about the treatment. Nobody, that is, until it came to the youngest and last, who gave a new turn to the discussion, by remarking that the thing which interested him most was what would cure the patient. Probably that way of looking at a hopeless case did not much impress the doctors, but it struck a responsive chord in the father's heart, and he then and there registered a vow that this was the doctor who should treat his son.

But as the years have passed, I have found that there is great difference of opinion, and a good deal to be said on both sides of the question, *Is Treatment of any Value in Pneumonia?*

Pessimistic Authorities

Dr. William Osler, easily the first English speaking medical teacher of his day, denies absolutely the value of medical treat-

ment in this disease. These are his words: "*Pneumonia is a self-limited disease, and runs its course uninfluenced in any way by medicine. It can neither be aborted nor cut short by any known means at our command.*" (Osler, "Practice of Medicine," edition of 1895, page 529.)

No stronger statement than this can well be made, and no higher authority than this writer can readily be found. I was greatly shocked—I might say disgusted—at this statement on his part, and was glad to find in later years that he had shown himself at least not infallible by first declaring that a man did his best work before the age of forty and that he ought to be chloroformed at sixty, and then himself living to do his best work after that age.

Later years of investigation have shown me that he was not alone in his views of the uselessness of treatment in pneumonia. Here are some of the statements of competent observers.

Townsend and Coolidge, in a statistical study of 1000 cases of pneumonia treated in the Massachusetts General Hospital from 1882 to 1889, reported that they found an average mortality of 25 percent; and after taking up briefly the different forms of treatment which had been used in the hospital during the period named, they conclude that "*the treatment had not influenced the duration of the disease or its convalescence.*"

Sears and Larrabee, in an analysis of 949 cases occurring in the Boston City Hospital from 1895 to 1900, find an average mortality of 35.9 percent, and reach the conclusion that "*the disease is not influenced by treatment.*"

Ashton and Landis, in a study of 991 cases in the Philadelphia General Hospital from May 1, 1897, to October 1, 1904, find a mortality of over 53 percent, which excessive figure they attribute to the fact that most of the patients were selected from the riff-raff of society; and they also agree that "*the course in these cases has been practically uninfluenced by treatment.*"

If this statement, so uniformly agreed upon by all these separate observers, is to be accepted as true, it seems to me a most humiliating confession of inability and inefficiency on the part of the medical profession as a whole. If medical treatment does not in any way favorably influence either the course or the duration of the disease,

of what use is medical treatment, and what is the use of having any doctor? It is assumed that the patient usually calls a doctor and undergoes treatment with the idea that the course of his disease may be shortened thereby, and the chances of his recovery increased. If neither of these things is true, why pay out his money for nothing?

But is it true? And, if so, must it continue to be true in the future as it has been in the past?

Not long ago, tuberculosis was looked upon as practically an incurable disease; but today its power over human life is broken, and its death rate is less than half what it was fifty years ago, and I do not know but I can safely say twenty-five years ago. Diabetes was long considered as incurable; but insulin has opened the door to both relief and cure, while other measures have been found to help the good work along. Typhoid fever cannot only be cured today but prevented as well—yet how different was the case only a few years ago! Diphtheria was, perhaps, the most dreaded of the common contagious diseases no longer ago than 1890; yet now it can be cured in practically all cases if the proper treatment is begun early, and better still, it can be prevented, and that by measures which are neither burdensome nor extremely painful. The same can be said of scarlet fever, and probably will soon be said of measles and the rest of the common contagious diseases. Why then despair?

Whatever may have been true in the past, we are not ready to accept the dogma that pneumonia cannot be influenced by medical treatment. As some one has well said, "Things move along so rapidly, nowadays, that people who say a thing cannot be done are constantly interrupted by some one doing it." The medical profession, working both singly and as an organization, will not desist from its work until the means are found, the fact accomplished, and the result generally admitted, that pneumonia can be cured and, better yet, prevented.

Some years ago, a commission consisting of eminent general practitioners, pathologists, and bacteriologists, was appointed to investigate the subject of acute respiratory diseases. After a year's work, they presented their report in the *Journal of Experimental Medicine*. Commenting on this report, the eminent editor of the *Medical Record* made the following remarks, which at least show some of the things which could be said on the more hopeful side of the question:

"On the whole," he says, "we cannot see that the pneumonia commission has made much progress towards the discovery of means for the prevention and cure of pneumonia, which, we believe, was the object of its composition. The reports of the laboratory workers are of much scientific interest, and we would not deny their value, or the necessity of laboratory work in an investigation of this nature; but one must admit that there is not to be found here much promise of a speedy reduction of the shameful mortality from pneumonia in New York, Chicago, and some other of our northern cities. *Perhaps an unprejudiced study of the methods of the many humble medical practitioners who do not write much, and who have comparatively little bacteriological wisdom, but whose patients do not usually die from pneumonia, would help the commission towards at least a partial attainment of their object.*"

Can Pneumonia Be Aborted?

Let us consider some subordinate divisions of the general proposition. The first of these is, whether it is possible by medical treatment to shorten the duration of a case of pneumonia when once the disease has set in? "Great oaks from little acorns grow"; and it is easier to kill a little acorn than a great oak. The first stage of pneumonia is congestion, which corresponds to the sprouting acorn. The best chance of killing it is found in the early stages. This sounds well, but will it work out in practice?

When this question first came up in my experience, it was generally taught—and accepted, by all but country doctors—that when a specific disease had once started on its course, it necessarily had to go on to the end of that course, when either the patient or the disease was worn out. The argument was that, if it did not go through all the stages, then it was not, for example, pneumonia. The answer given to a doctor who had the hardihood to claim that he had "broken up" or aborted a case of pneumonia was, "Then it was not pneumonia. The diagnosis was incorrect."

I remember one case of this kind in my own early experience, in which I fortunately called a good consultant early and let him make the diagnosis. Then, when the patient was free from fever in three days and all signs of pneumonia were gone, I reported it to the local medical society.

"But how do you know he would have had pneumonia, anyway?" asked a cautious critic. "Would have had pneumonia?" snapped out my neighbor who had seen the case, "He *did* have pneumonia, for I saw him!" So I made my point that time.

Many changes of theory and opinion have taken place in the medical world since those

days. Diphtheria is now aborted by the prompt use of the proper antitoxin. The same is true of scarlet fever, tetanus, and an everincreasing number of specific diseases. If there is any characteristic by which a specific disease may be known, it is that it is caused by a germ. And pneumonia is admittedly a germ disease. Also, "it has a determinate course and succession of phenomena, and is due to some distinct and definite cause." (Standard Dictionary.) It is more and more being treated—and treated successfully—with the bacterial vaccines, with the result of destroying or lessening the vitality of its causative germs, and so aborting—or at least lessening the virulence of—the disease. And if a disease can be aborted by one method of medical treatment, why not by others?

There is, fortunately, one practical point in this connection on which there is very general agreement. It is this, that the sooner the doctor takes charge of the case and the control of his patient, the better is his chance of recovery, the less likely he is to develop unduly serious symptoms, and the sooner he is likely to be well again.

I can furnish an illustration of this class of cases from my own personal experience. In 1903 I had an attack of acute lobar pneumonia. I had been suffering from a severe cough and other symptoms of what we call a cold, for several days, but had continued to attend my patients as usual, without paying much attention to my own symptoms. When I came home at night, I noticed that my sputum was considerably tinged with blood. Looking myself over a little as a patient, I found that I had a quick and bounding pulse and a somewhat high temperature.

I sent for a doctor, a personal friend in whom I had great confidence. His examination showed considerable dullness and crepitation in the lower lobe of the right lung. He sent me to bed and put me under the active-principle treatment at once. In three days the congestion, with its attendant crepitation, dullness, and fever, was practically gone. The disease never went on to the stage of consolidation, never came to a crisis, and so, according to the old-time standards, I did not have pneumonia at all, but only a somewhat congested lung. You may call it what you please; but for a score or more of years, I continued to have an abnormal tendency to a recurrence of this condition. This tendency I never overcame until the fall of 1916, when I began the systematic use of the type of bacterial vac-

cines adapted to the prevention of colds, which treatment I have since continued at proper intervals with excellent success.

And I have always been thankful that I had at this time the care of a physician whose greatest skill was shown, not in combating alarming symptoms and overcoming dangerous complications late in the disease, but in so conducting the case from the outset that no such symptoms should appear.

I believe that pneumonia can be aborted in a considerable proportion of cases, and that the attempt to do so should always be made when the case is seen early. That this desirable result cannot be accomplished in all cases, is probably due to one or more of the following causes: lack of vitality on the part of the patient; unusual intensity of the infection; or late beginning of treatment. Of these, the last concerns the doctor most.

In this connection I would like to express my pleasure in reading the excellent paper of Dr. Warnshuis in the September CLINICAL MEDICINE, on "The Early Recognition and Treatment of Croupous Pneumonia." Especially I note the prime importance which he gives to the early recognition of the disease, and to his frequent attempts to "break up" the disease, by simple means, "cutting short the attack," and "breaking up colds." He not only believes in aborting pneumonia but he knows how to do it.

One step further in following up the original question as to the value of medical treatment in pneumonia. It is this:—

Can Pneumonia Be Prevented?

Here I am thinking not of hygienic measures of prevention but of those which properly belong to medical treatment. Especially I am thinking of the *bacterial vaccines*. Is there any way of vaccinating against pneumonia? Can the bacterial vaccines be relied upon in any considerable degree to prevent pneumonia?

My own personal experience has convinced me of the undoubted value of these remedies in the prevention of "common colds"; and since the great majority of pneumonias find their exciting cause in a common cold, it certainly looks as though there might be a chance to do something in this direction. So far as I know, there is no germ or combination of germs which is claimed to possess the power of preventing pneumonia in the sense or to the degree that vaccination prevents smallpox. But the medical profession is alert. Who can tell what of the morrow?

Surgical Seminar

Conducted by GUSTAVUS M. BLECH, M.D.

[Note: The Seminar is devoted entirely to the practical interests of surgeons. Problems and their discussions are solicited. Contributors must give their names, but whenever desired these will not be published. Questions for this department should not exceed fifty words. Address all communications for the Seminar to Dr. G. M. Blech, 108 North State Street, Chicago.]

Surgical Diagnostics (Continued)

Palpation of the Neck. In order successfully to palpate the neck, the first requisite is to avoid all muscular tension during the examination. This can be easily attained by having the patient flex the head on the side to be examined, without at the same time overextending the head. Palpation should be performed with the index fingers of both hands, care being taken that the fingers are close together while the area or pathologic structures are investigated.

The first thing the palpating fingers reveal is the consistency of a growth or other pathologic structure. A growth is either hard, soft or of an intermediate consistency. As a general proposition—and we have in mind not only growths of all sorts of the neck but also everywhere else in the human body—the division just given will not suffice and resort must be had to familiar objects for purpose of comparison. “Hard like a stone (or cartilage or bone)” conveys a definite conception of a degree of hardness and the terms “fluctuation”, “elasticity”, “doughiness” represent easily appreciated expressions of various degrees of softness. For the intermediate forms we hear and read such descriptions as “tense”, “tough”, “infiltrated” and the like. The latter terms, by the way, are most frequently used in connection with inflammatory processes of structures.

For purpose of illustration, let us assume that we are palpating a large goiter. Is the goiter adenomatous, or is it cystic, containing fluid?

In adenomatous goiter partly superficial and partly deep palpation in the manner described will at once convey a more or less hard consistency of the growth, but in cystic forms the presence of liquid is determined by a knowledge of hydrostatic properties applied to fit anatomic conditions. Pressure of the finger of, say, the right hand will force the liquid away so that the other

adjoining finger experiences a sensation as if it were being lifted up, provided the latter finger has been allowed merely to rest on the neck without pressing down. If now the fingers exchange their rôles, that is to say, the finger which has pressed is resting lightly and pressure is made with the other finger, one will experience a sensation that a “wave” has occurred. This is simply a law of physics which cannot be demonstrated to the eye but which can be “seen” by touch.

Of course, where the liquid contents are so voluminous as to strain the surrounding sac or membrane, the liquid cannot be displaced.

Palpation of organs which are in themselves very mobile is rendered difficult and means must be found to steady the concerned part to insure proper palpation. This applies especially to the scrotum and its contents. Here one will resort to the simple maneuver of grasping the scrotum with the full hand and then palpate in the manner above described.

Let us assume that we are in doubt whether we have to deal with a hydrocele or a so-called scrotal hernia. We have already mentioned translucency and this expedient will, of course, be made use of; but, after all, palpation must enable us to make a diagnosis and this is very easy. In a hernia the growth-like swelling is not limited but continuous up to and into the inguinal region and certainly the identification of the vas deferens is obscured. In affections of the scrotum the growth or condition is limitable to the scrotum by simple palpation, and the vas can be easily palpated and determined.

Knee. Palpation of the knee presupposes first of all familiarity with the normal position of the patella. It will be recalled that this bone rests on the condyles of the femur. Now, if the knee joint be filled with an appreciable amount of liquid the patella will be raised from its normal position up and away.

This is easily ascertained when the flat hand is used to limit the pressure of the fluid from above while two or more fingers of the other hand press down the patella. By quickly removing the pressing fingers, the liquid within the joint forces the patella back into the original position and we ex-

perience a movement corresponding somewhat to what is known in obstetrics as "ballottement".

In examining any growth with more or less liquid contents solely by palpation, one has but to recall and apply the laws of physics to determine the presence or absence of fluid in general. Of course, palpation alone is not the sole means, and, as a matter of fact, is inadequate for diagnostic purposes, but the other measures will not be discussed for the present.

Physics plus a knowledge of physiology and histology, nevertheless, remain the fundamental means to arrive at a diagnosis, preliminary though it be, at the bedside when no time or opportunity is afforded for exhaustive examination. In other words, each physician and surgeon carries his examining kit in his finger tips.

Assuming for purpose of illustration that we have a tensely filled cyst. The pressing fingers encounter resistance but succeed in making a temporary dent, be it ever so small. The moment the pressing fingers are removed, the dent disappears with almost lightning-like rapidity. This experience is varied in degree in cases when the quantity of fluid is not filling a surrounding structure, when that structure is permeable or when the liquid contents have a certain degree of viscosity.

Accordingly pus will respond somewhat differently than clear fluid, and the fingers leave a more or less prolonged dent in edema or anasarca, because the tissues do not offer absolute resistance to the displacement of the liquid contents.

The trained examiner must and can differentiate between liquid contents and solid contents of very soft consistency. Example for this is a fatty tumor. It has happened again and again that mistakes have been made especially by neophytes when examining "tumors" of the abdomen, mistaking there fecal masses for cysts. Merely to complete the picture, our readers are reminded of our student days when the abdominal aorta was looked upon as a mysterious structure to be diagnosed as an aneurysm.

The hydrostatic laws plus physiology or histology, as you prefer, are demonstrated in the question of displacement of liquid contents when it comes to the examination of the bloodvessels. We do that every day when compressing the radial artery to determine the character of the pulse. We also can visualize the displacement of non-liquid con-

tents often simulating such, when we recall the reduction of an inguinal or femoral hernia.

Palpation serves us perhaps most brilliantly in examining growths for mobility. It is by pushing a growth in any direction that we can ascertain its origin. Palpation alone in the majority of instances suffices to tell us whether a tumor has its origin in the skin, fat, fascia, muscle or bone. Furthermore, palpation tells us in the presence of inflammatory processes what tissues are involved in the process, a diagnostic point of great prognostic importance.

It is a simple matter to determine in the examination of superficial tumors whether the skin is adherent to or part of the growth or freely movable. Grasping the skin as a fold and moving it about tells the story in a second or two. If we have the feeling that the skin cannot be moved away from the tumor we have half the diagnosis made and vice versa.

If we desire to test a growth for attachment to or origin from a muscle, we palpate entirely opposite than what was described above—namely, instead of avoiding tension of the muscle, we stretch the muscle so as to hold it firmly in place and then only do we endeavor to move the tumor away from the muscle, care being taken to follow the direction of the concerned muscle, as mobility in other directions has exceedingly limited diagnostic significance. The same rule holds good also in growths when one desires to test them for relationship to bone.

Palpation reveals much better than can be perceived with the ear the noises incident to friction. Whatever the cause, the flat hand can move involved tissues and under certain conditions "hear" friction sounds. I have had occasion to test this phenomenon in patients suffering from gas bacillus infections innumerable times during the last war.

In peace surgery this friction sound is of diagnostic significance especially in dry tendovaginitis, the so-called *tendovaginitis crepitans*. Here the phenomenon depends on the presence of fibrinous material on the inner side of the tendon sheath, and motion between the tendon and tendon sheath affords the palpating fingers a sensation similar to one when we compress snow into balls or when walking over freshly laid snow.

(To be continued)

Discussion of Problem No. 9

Recapitulation (See October issue p. 734.)
This problem, which was submitted by Dr.

L. Chapman, of Grand Falls, N. D. concerns a man, aged 76, who was in good health until two years ago when he had an attack of grip, which left him with impaired lower extremities. Loss of weight and anorexia were the sole symptoms in addition to the weakness of his legs.

He was seen early in September of 1925, for pains in the large toe of the right foot. There was an ulceration following the mis-handling of the patient of an ingrowing toenail. The nail was removed under local analgesia and hot, moist antiseptic dressings brought about satisfactory results.

A little less than two months later the patient again complained of intense pain in the toe which now showed septic gangrene. Amputation was refused and opiates had to be resorted to for three weeks, when extension of the gangrene to about one-half of the anterior part of the foot necessitated amputation by the circular flap method, speed being required on account of the presence of a poorly compensated mitral lesion.

In spite of some sloughing of the posterior part of the flap, healing took place per *secundam intentionem*. Convalescence, except for some slight reaction, was uneventful. The patient sleeps well but still has anorexia, and he becomes nauseated when attempts are made to feed the undernourished man. He seems to be gradually declining.

Dr. Chapman asks the diagnosis, prognosis and criticism of the treatment.

Discussion by Dr. E. C. Junger, Soldier, Iowa

I am afraid that the picture here presented suggests a man with some low sepsis, possibly a pyelitis, or else there is some hidden malignancy and one can not but think of the stomach and gall-bladder as possible seats of the disease which is undermining the patient's constitution.

The prognosis is not good.

If any criticism is to be made at all it can only apply to the local analgesia since the introduction of foreign substances of any kind—it really does not matter what particular drug Dr. Chapman has used—might be responsible for the spreading of infection and for the development of thrombosis in a part already devitalized.

I think this man would benefit from heliotherapy and general physiotherapy plus heart tonics and the like, but as was already said the prognosis is not good, no matter what treatment would be instituted.

Discussion by Dr. I. Arthur Edison, Chicago, Ill.

Dr. Chapman's case is very interesting because in my own practice I have encountered at least two which closely resemble his.

Here we have a man of advanced age whose sole history of influenza does not help us much, except to accept the theory that his vitality was lessened and that he became very susceptible to infection. Where the infection began is neither stated nor easy of guessing. Focal infection should have been looked for most carefully. In this respect the most exhaustive examination of the teeth, nose and throat would have been the proper thing to do.

In my opinion, there can be no criticism of Dr. Chapman's management that can be laid at his door. True, an amputation should have been made when it was found that ordinary treatment does not control the gangrene of the toe, but we know that amputations cannot be done without the patient's consent. As a matter of fact Dr. Chapman seems to have gone about the case very judiciously and, while the patient will probably succumb by the time this is published, he is paying that tribute to nature which all mortals must do, especially at his advanced age. Lots of methods and medicaments may be suggested, but—*cui bono?*

Discussion by Dr. Gustavus M. Blech, Chicago

Dr. Lorenzo Chapman sent to the Seminar the problem under discussion soon after he had amputated. Unfortunately, I could not publish it before this, because I have only a few pages at my disposal and there are a number of equally interesting cases still awaiting publication, but the delay does not lessen the value of the problem.

Irrespective of the outcome, we are confronting three distinct problems. The first requirement concerns the diagnosis. Had this been a case of diabetic gangrene, Dr. Chapman would have reported the presence of sugar either in the urine or in the blood or in both. As he has said nothing about it, we can only assume that we have no diabetic factor underlying the condition and we must therefore accept a circulatory disturbance due to obstruction of the bloodvessels—to progressive thrombosis. Whether or not the grip and subsequent infection have played a rôle is problematical, but in the light of our present knowledge we can safely assume that the two conditions favored a *locus minoris resistentiae*.

The prognosis is bad. An amputation, no matter how high performed, cannot stave off the grim reaper very long. Indeed, Dr. Chapman is to be congratulated that his patient survived the operation at all. I have not always been so lucky and when I assure my readers that I can perform an amputation in three minutes after having blocked the nerves they will appreciate that it was not shock that caused the death. I recall a number of similar cases where the patients became comatose and slept away, no matter what we did.

I have no criticism to make of Dr. Chapman's treatment. I cannot agree with my friend Junger that the hypodermic injection is objectionable. Surely, Dr. Chapman has used healthy tissue to anesthetize the nerves and has kept away from bloodvessels. Certainly, general anesthesia was decidedly contraindicated. All other points have been covered by Dr. Junger and Dr. Edison, so I think Dr. Chapman should have the last word. The columns of the Seminar are open to him for any remark he may see fit to make.

**Discussion by Dr. B. B. Parker,
Allerton, Iowa**

The problem presented by Dr. Chapman would have been greatly simplified if it had been accompanied by a laboratory report of the urine, for the case has all the earmarks of a diabetic gangrene. While the prognosis is bad, insulin would be indicated, provided, of course, the diagnosis which has been assumed is correct.

There can be no criticism of Dr. Chapman's treatment, which was carried out according to indications.

PROBLEM NO. 11

**Submitted by Dr. B. B. Parker, Surgeon
in Charge Parker Hospital,
Allerton, Iowa**

A girl, aged 8, was referred for a swelling or tumor mass involving the upper and posterior third of the forearm.

Parents, one brother and three sisters, two of which are younger than the patient, living and well. The mother had one miscarriage.

The patient was born at term normally and was breast-fed. Had whooping cough and chickenpox in infancy. In 1925 the patient had eye trouble and was placed on K.I. on general principles, as no definite diagnosis was then made. The mother relates that the patient's eyes were "droopy" and that she had poor vision.

Status praesens. About February 20 of this year, the mother noticed a swelling of the forearm at and below the elbow. A physician made the diagnosis of abscess and ordered poultices. The arm presents a hard, fusiform enlargement of the upper third intimately connected with if not of the ulna. The area was not painful nor did the patient complain. Needless to say, the physicians who first saw her failed to detect the anticipated fluctuation after poulticing. Nevertheless, incision was made by him without result. He consulted me next. Roentgenography of the involved area showed a general enlargement of the upper third of the ulna with periosteal thickening and separation from the bone at some points. No bone destruction anywhere.

The soft tissues are infiltrated and tumescent. The joint is not involved. I saw no discharge from the incision. There was no rise of temperature nor increase of the pulse rate. The patient freely used the joint, there was neither pain nor stiffening. Urine normal, Blood count negative.

I recommended K.I. internally and to submit the parents to the Wassermann blood tests, it being my opinion that the affection was a local manifestation of a constitutional affection.

Under the treatment the swelling subsided to a great extent but at the site of incision there developed an extensive ulceration discharging sero-sanguinous fluid of foul odor.

A later x-ray showed increase of bone involvement without necrosis.

Requirement: Diagnosis and reasons.

(EDITOR'S NOTE. This is a very interesting case and it is hoped that a full and exhaustive discussion will reward Dr. Parker for his kindness in sending us the problem. A point already brought out is that the first physician who saw the little patient did not know how to palpate properly, otherwise he would have recognized the fact that the tumor was in intimate connection with the bone. The editorial in this issue is, therefore, timely.

Dr. Parker has been away on a study trip, having visited the more important surgical clinics. That is why we have not heard from him more often.)

**Case Report by Dr. I. L. Johnston,
Samson, Ala.**

I was called to see a woman who had been delivered by a midwife. The placenta did not come away and the midwife could not deliver it.

I used the Credé method, making pressure on the abdomen with the left hand while the first and second fingers were in the vagina endeavoring to make traction on the placenta around its edge. After some efforts I was rewarded by feeling the placenta moving, and while the placenta was delivered there was a complete eversion of the uterus.

I hurriedly tried to separate the placenta from the uterine wall, but there were dense white fibrous adhesions, which made separation extremely difficult. After the separation, I pushed the placenta back in place with the aid of a large piece of gauze, but by the time this maneuver was completed the patient was dead.

I desire to add that, from the moment eversion of the uterus took place to the moment when I replaced the placenta, only seven to eight minutes had elapsed.

Requirement: Free Discussion of this case.

**Case Report by D. E. G. Holden,
Eaton, Colo.**

A girl aged 11, with no other personal history except typhoid fever two and one-half years ago and a family history of a tuberculous mother, consulted me for vomiting, pain and tenderness just below the xiphoid, believed to be due to overindulgence of cherries. Basing on this, I administered calomel and castor oil.

The following morning at two, I was called again and as the pain was very severe I gave her codeine which produced sleep. At nine in the morning I was told over the phone that the girl had slept well, was not vomiting and was otherwise doing well.

The following morning I was sent for because the girl was much worse. Her temperature was 99.5° F., pulse rapid and feeble and the expression pinched, but there was no vomiting. The pains were exquisite at the same site.

I at once took her to the hospital where a series of x-rays were begun. After three hours we found that the stomach had not emptied. At this time the appearance of the patient was that of a rapidly fatal termination. A prominent surgeon gave a bad prognosis at that time, irrespective of the cause of the obstruction, and declined operation on the ground that it would only hasten the patient's death. Her family, however, took the stand that whatever chance there might be should be given the girl and the consultant and I operated.

We found in the pylorus a hard mass about the size of a goose egg, flattened in shape. The duodenum had a number of smaller tumors, probably of the same character as the large growth. We were in a terrific hurry and had little time for detailed observation. We did a gastroenterostomy and with the exception of the first 24 hours the patient made an uneventful and rapid recovery.

I append the laboratory report:

The specimen consists of a spherical piece of tissue, measuring about one centimeter in diameter, covered mostly by mucous membrane. Underneath is a dark red area, apparently blood.

Microscopically, the sections reveal the mucosa with goblet cells and glands of Lieberkühn under the muscularis mucosa and clear to the circular layer of the muscular coat is a large hemorrhagic extravasation. There is no atypical proliferation of the epithelium and no evidence of any tumor formation. The histological picture is that of a hemorrhage. The latter also extends into the mucosa.

Diagnosis: Hemorrhage into the walls of the duodenum.

(We congratulate Dr. Holden on the outcome of this case and thank him for its contribution to the Seminar. The clinical and pathologic report is interesting and instructive.—Ed. Seminar).



Clinical Notes and Practical Suggestions

Veratrum in Puerperal Eclampsia

THE veratrum treatment of puerperal eclampsia is plain, simple, and easy to institute. I take it that the good effects of this drug in eclampsia are not known as they ought to be. I regard the use of veratrum as being the treatment *par excellence*.

Generally speaking, when called to a case of puerperal convulsions, I give at once a half teaspoonful of tincture of veratrum viride. It is probable that veratrine given hypodermically would produce the same good results as the standardized tincture given orally. I have had no experience with veratrine in this malady. In case of an overdose of the tincture, the patient will vomit, thus getting rid of the surplus, and giving warning for a let-up of the drug. If the veratrine is used and given hypodermically, more caution would doubtless be required to avoid overdosing. Probably smaller doses should be given at short intervals, to effect, meanwhile keeping a close watch on the pulse.

I next proceed to empty the uterus, not by rough, harsh means, but without unnecessary delay; carefully and without injury to the patient, with clean hands and instruments. This in case the labor has not already been completed.

If the convulsions still continue, I repeat the dose of veratrum half an hour after the first dose, and repeat the dose a third time if needed. By this means one can soon put an end to the convulsions.

After the eclamptic seizures have ceased, start active eliminative treatment. Give the patient a dose of castor oil and a warm sponge bath. Examine the urine (it will probably be found loaded with albumin), but avoid giving irritating diuretics. The kidneys are already congested and overworked; but they will usually right themselves in time without a severe whipping.

Now your first thought may be, "An enormous dose of a powerful drug". If you have never used veratrum in eclampsia, you will naturally have suspicions as to the

safety of such "heroic" doses. But in eclampsia, large doses of veratrum given orally are devoid of danger. There will be no danger whatever in giving at least a large initial dose. There will be no danger in giving half-teaspoonful doses of the tincture so long as the convulsions continue and the pulse continues to throb with "sledgehammer" beats. Nothing short of a large dose will accomplish the desired effect. In two instances of plethoric women, I have given a teaspoonful of the tincture as the initial dose. If too much is given the patient will vomit.

The liberal doses of veratrum will speedily put an end to the eclamptic seizures, after which such general measures can be instituted as each individual case demands. The veratrum is quickly absorbed and enters the circulation speedily. If you prefer, after an initial dose of 30 minims, feel your way along with smaller subsequent doses of 10 minims repeated every ten minutes, until the desired effect is accomplished.

The action of the drug is probably due to its effect on the vasomotor nerves and the consequent lessening of the tonicity and power of contraction of the blood vessels. When the convulsions have ceased, and the pulse has softened down to somewhere near the normal point, stop giving the veratrum.

I have not known nor heard of a single fatal case of this dread malady when given the large dose veratrum treatment. No bloodletting, morphine, chloral, bromides, nor chloroform are needed. The veratrum will accomplish the desired results surely, speedily and safely. No bad after effects appear and no undertaker will be needed on the job.

To the younger members of the profession, I would add:

When you are called to a case of puerperal convulsions, you will witness a scene of consternation and despair. You will be confronted by an extremely grave and formidable condition—one of the saddest plights

that can befall a loving expectant mother. The convulsions serve no good purpose. The sooner they are stopped, the better. If they are permitted to continue the patient will surely succumb.

Measure up to your responsibilities and save the patient. Do not forget the great value of veratrum in this affliction; and do not be afraid to give it. Carry a phial of the standardized tincture of this drug in your obstetric bag as a part of your equipment.

F. D. HULBURT,

Reedsburg, Wisc.

[Veratrum is a very powerful drug and has been recommended for the treatment of eclampsia. It lowers blood pressure promptly by depressing the vasomotor mechanism.

This is one of the few drugs which act as well or better in the form of a reliable, standardized tincture than when the active principle is given; though veratrine is much safer than a tincture about which one knows nothing.

If, as sometimes happens, the patient is unable to swallow, there is a distinct advantage in giving veratrine hypodermically, dissolved in dilute alcohol (it does not dissolve readily in water). The first dose should, as Dr. Hulburt suggests, be a bold one (1/12 grain), and should be repeated as necessary to maintain the effect.

Some of the best obstetricians do not agree with the Doctor in feeling that the emptying of the uterus is part of the routine treatment of eclampsia, but state that this should be done only where there is a distinct *obstetric* indication for it.

The modern treatment of eclampsia is largely preventive, and when given as a curative measure is somewhat complicated. It might be a good idea to get some veratrum or veratrine and *learn how* to use it. Then use it in the next case which confronts you without your having had a chance to prevent it.—Ed.]

HEALTH SLACKERS

A slacker is a fellow that will not go along when there is a great duty to perform. In peace there is also war going on, the war against sickness and preventable deaths. There is a fight for health and long life.

Fortunately, the average citizen is becoming wiser and sees the advantages of being his brother's keeper in matters of health.

There is the health slacker who tries to

defy the laws of quarantine; he is a menace to his community.

There is the health slacker who lets his chimneys belch black smoke, darkening the skies, shutting out the precious sunlight and blackening the clothes and temper of his neighbors.

There is a health slacker who spits on the sidewalks, coughs in the faces of others and sneezes so that his spray contaminates all around him. And so on.

As bad as all these health slackers are, the worst one is the parent who neglects the physical condition of his child. In the face of expert advice, he neglects to correct diseased tonsils, defective teeth and adenoids, poor vision and hearing, which are important causes of the undernourished condition of his child.

We owe it to ourselves and to the future generations to give every boy and girl an opportunity to reach the best physical and mental development of which they, as individuals, are capable.

Truly, the noblest motive of a citizen is the good of public health through the education of health in his children.

HERMAN N. BUNDESEN,

Chicago, Ill.

THE ACCIDENT OF BIRTH

It isn't the ancestral shadow you cast, but the light you bear that makes the way easy for you and others.

Many of our first families (as you come into the town) have ancestors that came over in the Mayflower.

Other Mayflower descendants have managed to live it down and they dwell in marble halls with the nabobs on Snob-Hill; but their next-door neighbors came over in an ash can.

A family picture is the place for background and ancestors. Let the dead rest in peace. But you should be up and doing instead of leaning on a coffin.

Pants patches mean something. On the knees they are badges of distinction. On the seat they forecast approaching extinction.

Refinement is no reference. Where real work is to be done it is more often a handicap.

Pedigrees are for pups and prigs.

The only aristocracy should be that of service.

Ancestors are good only as measuring sticks. If they were famous, you must hus-

tle to measure up to them; if ordinary, you must hustle to keep your head above the swamp of mediocrity.

Pride should be vested in praiseworthy, personal performance. No medals should be given out for an accident of birth. Your great grandfather *was*, not is. You borrowed your years from eternity—when you finish paying back you are history.

As you pass the Historian's Camera, be sure you register as more than a carbon copy.

—CHESTER H. STRUBLE, in *Nautilus*.

[There are some worth-while ideas in this if you don't take it too literally.

In the first place, birth is not an accident. You are what you have deserved to be. In the second place, every student of genetics knows that it makes a *big* difference to you who and what your progenitors were—not how much money they had nor where they lived, but what sort of germinal cells they gave you at the start.

Read this as an *allegory*, then, and you will get something out of it.—Ed.]

CASTRATION IN SENILE ENLARGEMENT OF THE PROSTATE

Mr. B., 80 years old, had suffered greatly for 15 years as the result of enlargement of the prostate gland. During this period he has had to catheterize himself several times a day and frequently experienced such difficulty in passing the instrument that I was called to do it for him. Because of his age and extreme infirmity I had about concluded that his case was incurable.

More than a year ago he called my attention to an enlargement of the right testicle, which had been present for several months but was then growing more rapidly and was hard and very painful. I suspected that the tumor might be malignant and removed the enlarged testicle under local anesthesia. No laboratory work was done to determine the nature of the tumor.

Following this operation the patient's general health was much improved, the necessity for catheterization was considerably decreased and he went about very happy for a year.

Three or four months ago he called upon me again, suffering with identically the same condition in his left testicle as had formerly affected the right. I removed the left testicle under local anesthesia and at the same time repaired a large inguinal

hernia on the same side. He was, of course, in bed for a number of days following this operation, but his health improved rapidly even during this period.

This elderly patient now appears twenty years younger than he did before the two operations, voids his urine freely and in a full stream, has no further use for the catheter and is very happy over the loss of his gonads, declaring that he will recommend a similar operation to all his aged fellow sufferers.

This remedy, if applied to a young man, might be worse than the disease, but the old man has nothing to lose by such an operation and, in this particular case, much was gained.

I should like to know if other surgeons have seen similar results in such cases and to hear opinions as to the exact mechanism of the apparent cure of what seemed to be a hopeless case.

G. W. WILLIS,

Ocilla, Ga.

[This is a very interesting report. That there is some relationship between the prostate and the other genital organs of the male is now rather generally accepted, but the nature of this relationship is still very imperfectly understood.

The results in this case open up some fertile fields for investigation and speculation. Can it be that involution changes in the gonads give rise to the prostatic hypertrophy which so often afflicts old men? If so, it may be that Steinach's operation cuts off the flow of some toxic substance from the testes, rather than preventing the loss of some other more or less hypothetical internal secretion.

Let us hear from our urologists and endocrinologists on this matter.—Ed.]

COMMENTS ON DR. WILLIS' CASE

By Dr. Maximilian Kern, Chicago (Endocrinologist).—This clinical note raises some rather interesting questions. First: That the so-called senile hypertrophy of the prostate is really very often a misnomer. There is no enlargement of the prostate gland proper, but a physiologic senile hypertrophy of the Albarran cervical prostatic or periurethral submucous glands or tubules. As a matter of fact, the prostate proper is compressed and interfered with, and presumably its secretion is diminished. Some authors allege that this physiologic enlargement of

the Albarran glands is a result of changes in or cessation of testicular secretional activity. But it may also be possible that entire suppression of the testes, as in the present case, may inhibit it.

Second: Assuming that the submucous cervical gland hypertrophy has ceased and that the prostate is freed from compression, with freedom to resume its particular secretion, the effects in this case would tend strongly to support the contention, put forth a few years ago by Hunt (CLIN. MED., 1923, 30 p. 862), that the prostatic secretion proper, as well as that of the testicle, is responsible not alone for sex desire and function but presumably also for the maintenance of all those qualities which constitute "maleness" and vigorous manliness—qualities which hitherto have been attributed to the interstitial cells of the testicle alone.

The third question raised is that transplantation of the testicle alone, as a therapeutic measure for so-called "rejuvenations" in old age, may not suffice; but that the effect of the proper secretion of the prostate, as Hunt points out, is required to restore the ravages of senile gonadal degeneration.

By Dr. Gustav Kolischer, Chicago (Urologist):—In regard to the clinical report you were kind enough to send to me, I would like to say this:

It is a very well known fact that occasionally castration is followed by a shrinkage of a hypertrophied prostate gland. This operation was abandoned as a method of routine, partially because success was obtained in only very few cases, and partially because castration in prostatics is quite often followed by severe and lasting psychic disturbances. Of course, in a case of such a poor surgical risk as that mentioned, one may attempt castration as a last resort.

Dr. James H. Hutton, Chicago (Endocrinologist):—It has been known for a long time that there is an intimate relation between the testicles and the prostate gland and that castration in youth is followed by lack of development of the prostate; whereas, if the castration occurs in adult life, it is followed by atrophy of the prostate. Many years ago White suggested castration as a cure for prostatic hypertrophy.

I think this probably explains Dr. Willis' case as nearly as it can be understood at this time.

AN AID TO THE MEDICAL PRACTITIONER IN TREATING VENEREAL DISEASES

Physicians treating venereal disease cases have frequently expressed a need for a pamphlet containing instructions and advice to be given to venereal disease patients. Due to the nature of these diseases and the regimen which proper treatment requires, the need for such a publication has long been apparent. Some time ago the U. S. Public Health Service prepared a pamphlet known as, "Important Confidential Information" expressly for this purpose. The leaflet is in two parts, one dealing with Gonorrhea and the other with Syphilis. Advice is given, among other points, on the following: Importance of continuing treatment until cured, proper diet while under treatment, proper care to prevent the spread of the disease, the futility and danger of quacks and self treatment, sex conduct and marriage.

Many physicians have found this publication a valuable aid in securing the cooperation of the patient while under treatment and also as an aid in holding the patient until cured or rendered noninfectious. Copies of this publication are available from most State Departments of Health or they may be secured by writing to the U. S. Public Health Service, Washington, D. C.

MEDICAL PRACTICE IN NICARAGUA

I sometimes wonder what some of the medical celebrities would do under the conditions which confront us in Nicaragua.

Here are some of the popular native medical suggestions:

Chicken dung is a sure cure for fainting. (I have carefully avoided fainting since coming here!)

A maiden's urine relieves dyspepsia.

Eight-day-old urine is a specific for rheumatism.

I have repeatedly seen the prescriptions I have given set aside and these curious remedies used in their stead.

A gunny-sack on the floor is considered an adequate delivery couch, though people of the better class use two or three sacks, sometimes. The mother kneels on the sacks during her labor.

I give pituitrin just before the baby is born and a few minutes after the placenta is delivered.

They burn the umbilical end of the cord and, if I insist, they will bathe the baby.

The mothers get up the day after delivery and do the washing and other household duties—but they do not bathe for forty days.

In spite of these barbarous practices I have never seen a case of puerperal septicemia in the three years I have been here, whether a doctor was in attendance or not. In fact, most of the women do not employ a physician but merely any old woman who will come in, so we can not congratulate ourselves over the favorable results.

Round worms (*Ascaris lumbricoides*) are among the most frequent complaints encountered. Practically all the children I see get a dose of oil of chenopodium at once, on suspicion. Next day I can consider the other symptoms.

I have known a patient to pass as many as 160 round worms in 24 hours. These are larger than the average earth worm and they come out through the nose and mouth as well as from the rectum. They get into the lungs, the liver and the pancreas.

The patients frequently come back for more medicine, and if they pass less than 30 or 40 worms they feel that the result has been inadequate and unsatisfactory.

L. H. B.

Nicaragua, C. A.

[All of us who have had experience in the remote parts of the world have had occasion to be struck by the high degree of immunity against pyogenic organisms possessed by people who lead a primitive—and filthy—life. This probably resembles the immunity against measles possessed by the white race.

In the museum of the Surgeon General's Office is a liver, removed at autopsy, in which all of the larger bile ducts are occluded by ascarides.

This is an interesting letter and should set us all to giving thanks for our mercies.—Ed.]

TRAINING FOR PARENTHOOD

If young men and women are to be adequately trained for parenthood, first of all we must have a foundation in good habits started in the very young child. Begin to train the baby the day he is born. In the preschool age, lay the solid foundations for proper habits in cleanliness of the body and mind; for the regulation of eating, playing, and sleeping; training in self-control as regards food, pain, and temper; and the prevention on the part of the mother of any tendency towards self-abuse. At this time

the first sex information should be given, by truthfully answering the question of where babies come from, and drawing simple lessons in reproduction from the flowers, the birds, the cat, dog, or rabbit. All sex information should be given gradually, answering the questions of the child as they are asked. A bond of confidence is thus established between the parents and the child. All puzzling questions should be brought to the parents to be answered, for the child forewarned is forearmed. In school the child comes up against much that is evil. All grade teachers know the dirty language used in toilets, the obscene pictures and words written on the walls, the salacious books, and vulgar and vile notes passed quietly from one pupil to another. Often children are taught much that is sexual perversion in the playground or toilet of the school. Many grammar schools have had the problem of pregnancy in young girls to solve, and that of abnormal sex relationships between boys and girls.

Something should be done in the schools to counteract this evil influence. Children should be taught something of the elements of reproduction in their nature work and practical hygiene, followed later by physiology. The janitors of all schools should be men and women of good repute, who would try to keep the toilets and playgrounds in good condition and influence the children for good by the force of their own personality.

All children should be taught a decent vocabulary, thus enabling them to explain to the teacher or doctor without embarrassment ailments concerning the more intimate parts of the body. They should be familiar with such words as laxative, constipation, diarrhea, vomiting, nausea, bowel movement, private parts, breast, navel, chest, abdomen, thigh. All girls should be taught early in adolescence the significance of menstruation with its hygiene and such terms as menstruation, rectum, anus, private parts, ovaries, Fallopian tubes, uterus, and vagina. All boys should also know the terms external genitals, rectum, anus, scrotum, testicles, penis, and the meaning of the seminal emission.

Adolescence brings its own problems, for here we have the true awakening of sex consciousness, with often a boy quite fully developed physically, but without the mental equipment of self-control, reason and will power, which are so very necessary for him to be really and truly master of himself.

All adolescents should be given some information on the physical and mental changes of adolescence; the internal secretions of hormones; reproduction taught biologically, especially in vertebrates, from fish to mammals, including the human being; the anatomy and physiology of the reproductive system in both sexes; a study of marriage, its history, what are the essentials for a happy marriage, and reasons for divorce. Girls, especially, should receive instruction in hygiene of the pregnant mother, care of the baby, and home-making; in boys, there should be inculcated a reverence for all women, knowledge of the meaning of chivalry toward women and children, and why it is desirable, and the value of the home and a happy family.

Both sexes should be informed regarding the venereal diseases, prostitution, and heredity, using as examples the Edwards and the Kallikak families. Discussions on dress, dancing, and spooning never fail to interest boys and girls. Add to this a discussion of books, plays, moving pictures, and art exhibitions, including special notice of the nude in painting and sculpture, and you will arouse their interest, get their views, and be able to correct wrong impressions.

In the William Penn High School, where I have been training girls for motherhood for fourteen years, my experience is that they are curious, anxious, and eager to know the truth and then to do what is right. We cannot start this training in high school. The start should be made by the parents in the preschool age, in the formation of hygienic habits and grounding in good character. Continue this and add nature study in elementary botany and zoology in the elementary schools, and then in the high school continue to build on this solid foundation, and we will have as a result a set of young men and women, strong in body, clean in mind, and fit to beget children.

It has been said that knowledge is not enough. How many do have the knowledge of the facts of life, but refuse to walk the straight and narrow path! Such persons have knowledge, but without strong character, and character we must have. Somehow, all along the line, children must be taught to love God, to respect themselves, to do right for the right's sake, to practice the Golden Rule, to cultivate honor, honesty, truthfulness, sincerity, loyalty, kindness, sympathy and generosity—for without these knowledge is of little value. Let us train

these future parents by building on the solid rock of character a structure of scientific knowledge. The result will be a new generation that will surprise the world by its wholesome viewpoint of life and its high ideals of conduct.

FLORENCE H. RICHARDS,
Medical Director, William Penn High
School, Philadelphia.

Journal of Social Hygiene, March, 1926.

EACH MUST GROW HIS OWN SOUL

You can give a child nothing that he can keep. All that is truly his is a part of him. Such power as he possesses grows out of himself and the growth of that power is purely his own affair. You can inspire it, you can guide it, but you cannot give it to him. As he is to stand out a man, so must he be born again, and under his own power.

We who have suffered our own growing grieve to see a child agonizing to emerge into life, and often we make the mistake of trying to save him the cost of his soul. We do the hard lesson; we step in between him and the consequence of his conduct; we give him the money he should have earned; we pity him openly when we should have called on his courage and faith. When he fails, we blame him—this child we cheated of his strength.

"What can I do with him? I have given everything to that child and he gives nothing. He is lazy and wasteful. If I try to get him to work he falls ill; if I try to teach him how to be well, he is rebellious and ill-tempered; if I try to talk to him he closes his ears. And I did everything for that child."

Everything but stand by and let him have the training life demanded. You can start your acorn in the hot-house, but you must plant the young oak on the hillside so that the Mother of us all may weather it into experience and strength.

ANGELO PATRI,
In McCall's Magazine.

TREATMENT OF BURNS

Why all the fuss about the troublesome dressings of severe burns which involve large areas of skin? Why the need of an anesthetic to remove a dressing or apply one such as described in the August CLINICAL MEDICINE (p. 580)? Why the need of anything like parresine or the wax-spray atomizer? I do not think we need them in

any kind of burn, either first, second or third degree.

I have treated many severe burns and have found none of the above necessary. The application I use is the old home remedy: sorghum molasses and flour. This makes an efficient dressing from every angle of the medical problems to be dealt with. It preserves much tissue that would be lost, due to the dehydration; it supplies the tissue with the much-needed sugar; also acts as an antiseptic, keeping down the development of pus-producing organisms. It is also easy to apply and easy to remove.

I make up a mixture of the molasses and flour to the consistency of thin cake batter and apply it on a piece, or pieces, as the need may be, of sterile gauze and a thin layer of gauze over this, and then cover with paraffin paper to keep the mixture from soiling the bed. Over all this I apply a thin layer of cotton and bandage with just enough tension to keep the dressing in place. I have found this universally good and have had many happy results with this treatment.

First of all, it is a dressing universally easy to get, easy to apply, comfortable to the patient in its application and removal, keeps down infection, saves much tissue that would otherwise slough and does much to combat the toxemia from protein absorption. I believe much of this is due to the feeding of the tissues with the necessary sugar. This may not be ultra-scientific, but it has borne the test and produced results that I have failed to see or get by other methods.

C. E. BETTS,

San Antonio, Tex.

[Time was when cataplasms of bread and milk, flax seed, fried onions and various other more or less messy things were widely used, not only by the laity but also by physicians. These unsightly poultices doubtless served a purpose, but we now know cleaner and more efficient methods for accomplishing the same results.

Burns have long been treated with dressings combining an alkali (to neutralize the acid toxins formed) and oils (to exclude the air and keep the dressings from sticking to the wound). Such dressings have saved many lives.

More recently the tendency has been to use such chemicals as picric and tannic acids or to cover the burned area with a coating of semi-flexible, medicated wax,

such as parresine. These methods are especially useful where the burned area is large.

In emergencies these drugs and dressings are not always available—though every physician can carry a tube of butesin picrate ointment or unguentine in his first-aid kit—and we must use such materials as are at hand.

The use of dextrose in combating the acute carbohydrate deficiency which occurs in severe burns is steadily gaining ground, and it may well be that Dr. Betts' suggestion has a good deal of merit, and we are glad to submit it for the consideration of our readers, who may like to try it when they are far from hospital conveniences.

We cannot, however, help feeling that such a treatment might have proved inadequate in a case where the burns were so extensive as they were in Dr. Wishard's case, and that, where available, the clean, exact, surgically sound methods now in vogue are, in most cases, superior to extemporaneous therapy with domestic remedies.—ED.]

"SILENT" SICKNESS MOST FATAL

Dividing the whole category of human ailments into two groups, those that advertise and those that do not, the silent, whispering sort of sickness is far more deadly than the kind that announces its presence through fever, pain, eruptions and other well-known disagreeable manifestations. Diseases of the heart, blood vessels, and kidneys contribute less than 10 percent of the recognized illness and more than 33 percent of the total mortality; while contagious infections, traumatism, cancer, and all of the other afflictions that go to make up the 205 officially classified means of demise contributed over 90 percent of the sickness and less than two-thirds of the deaths.

Like still water that runs deep and barking dogs that never bite, the silent, whispering diseases are far more deadly than those which make known their presence through fever, nausea, pain, skin eruption and other common disagreeable manifestations. Contagious and other incapacitating diseases are less deadly because we recognize and fight them. They make us sick and we therefore challenge their progress at every turn with all the resources at the command of medical science and sanitation.

Periodic health examinations are the only effective means of detecting the presence of the stealthy diseases at a time when they

are amenable to treatment. This is the only practical weapon yet devised by medical science that may be used to combat a small group of conditions which cause over one-third of all deaths.

ISAAC D. RAWLINGS,

State Health Director,
Springfield, Ill.

TREATMENT OF DIABETES

For five years, I treated a woman with diabetes mellitus by all the best remedies known to the profession. Her urine was heavily loaded with sugar and she voided from 1 to 3 pints every night.

Her condition at length became grave and I prescribed the following combination:

R Acid Tannic	gr. XL (2.65 G.)
Bismuth Subnitrat.	gr. LX (4.00 G.)
Pancreatin pulv.	gr. LX (4.00 G.)
M.et ft. Chart. No. 21.	Sig.: One powder to be taken every six (6) hours.

Under this treatment the patient has gained 12 or 15 pounds in weight and is able to do some housework. The amount of urine voided and the percentage of sugar are only about one-half of the quantities formerly present. She sleeps well and her appetite is good. I let her eat as much as she pleases, under my direction, feeling that it is a mistake to starve these patients.

T. H. MAYNARD,

Clare, Mich.

ROENTGEN RAY THERAPY IN UTERINE FIBROIDS, HEMORRHAGE AND OTHER GYNECOLOGIC CONDITIONS*

Ten years' experience with the use of x-rays in treating fibroids and other pelvic diseases of women have convinced Dr. Hanks of their value in many of these conditions.

Cases for this form of treatment should be selected with great care. Hemorrhagic, intramural fibroid tumors (which compose 75 percent of all benign pelvic neoplasms) show the best results and this form of treatment is especially indicated where patients refuse operation or, for any reason can not or will not be hospitalized.

Roentgen therapy is *contraindicated* in:

- 1.—Tumors with acute symptoms.
- 2.—Large, nonvascular, connective tissue tumors.

3.—Fibroids, with large ovarian tumors.

4.—Pedunculated, submucous fibroids.

5.—Gonorrheal infections.

6.—Malignant neoplasms.

Long experience is showing that these contraindications are not so binding as they seemed at first.

Do not depend too fully upon curettage for the diagnosis of malignancy. Errors of observation or judgment are sometimes made. If you feel uncertain or worried about the case, turn it over to the surgeon. Any tumor which is not materially reduced in size by two or three series of x-ray treatments is a surgical case.

Uterine hemorrhages not due to cancer are relieved by roentgen therapy in 98.4 percent of cases. Simple and retention cysts generally do well, but this method is useless in cystadenoma. Cysts and erosions of the cervix are usually cleared up rather promptly by x-rays and many cases of cancer are thus prevented.

Uncontrolled dysmenorrhea is frequently relieved by small doses of x-rays at long intervals, and chronic adhesions and indurated tissues seem to be softened and removed. A long-continued and troublesome climacteric can often be promptly terminated in the same manner.

A considerable number of these patients show signs and symptoms of more or less advanced hyperthyroidism, and it is interesting to observe how frequently these symptoms improve along with the improvement of the pelvic organs.

The rays should be produced at rather low voltage (120,000 to 130,000 volts) and should be screened with aluminum and sole-leather. Several treatments should be given at rather long intervals, so as to allow the tissues to adjust themselves to the changes produced. Burns can always be avoided, as toxic or erythema doses need never be employed, and if care is exercised no x-ray sickness results and no changes are produced in the secondary sex characters, as only ovulation and not the endocrine functions of the ovaries is affected.

If patients who come for treatment are alarmingly anemic, it will generally be found that they are suffering from focal infections. These should be cleared up before treatment is begun.

Following hysterectomy, 39 percent of women lose their sex function completely. Part of this is due to fear and the psychic effect of a mutilating operation. X-rays cause no mutilation and are always under

*Abstract of a paper by Dr. Mary Elizabeth Hanks, read before the North Shore Branch, Chicago, Medical Society, October 5, 1926.

control, so that we can stop short of destroying the endocrine functions of the ovaries. We, therefore, find that, following x-ray treatments, there is no change in the sexual function or it is improved, because of the relief of pain and freedom from the fear of conception. For this reason, it is a suitable treatment to use in younger women (25 to 35 years old); and the amenorrhea which results is not always permanent, but menstruation may return and conception take place after from six months to five years.

The advantages of roentgen therapy over surgery and the use of radium, in benign pelvic affections are:

- 1.—There is no danger to life. (There is danger following surgery or radium.)
- 2.—There is no hospitalization or loss of time for the patient.
- 3.—There is less danger of malignant changes. (0.5 percent following x-rays: 3.4 percent following radium.)
- 4.—Large tumors can be handled more satisfactorily.

G. B. L.

THE TREATMENT OF ROENTGEN-RAY NAILS

Many roentgen-ray operators suffer from roentgenographers' nails. These usually present a trophic appearance; they are rough, ridged and dirty. The literature to which I have access does not consider their treatment. The method here described has given me excellent results. It requires patience and perseverance.

The hands and nails are cleansed with a soft brush and good soap. The hands are bathed in very hot water, then immersed for a few seconds in very cold water, and rubbed dry with a crash towel. The entire hand is anointed with olive oil and the oil is worked into the nails, especially their corners and edges, by means of an orange-wood stick. This had best be done in the evening, the surplus oil left on the fingers, and a pair of gloves worn during the night. In the morning the hands should be again cleansed, rubbed with olive oil, and the oil wiped off with a towel.

After this treatment has been followed for six or eight weeks, one should consult a good manicurist, explain the condition, and have the nails manicured with great care. The nails should be trimmed, prepared, and finally a glaze put on them. This fills the ridges, closes the pores, prevents them from cracking or breaking, gives a

smooth and glistening appearance, and prevents the collection of dirt.

Among the physical measures that may be employed constantly is that of the alternation of hot and cold water—a sort of Scotch douche. This treatment will usually result in a presentable set of nails. Ordinary care and thorough attention given by the manicurist is all that is necessary to keep the nails in excellent condition.

Any one who has had roentgen-ray nails and has succeeded in getting the fingers and nails in good condition must continue to take care of them.—Curran Pope, M.D., Louisville, Ky.

Reprinted from the *J. A. M. A.*, July 24, 1926.

BACTERIA, VIRULENT AND ATTENUATED

Bacteria are plant growths, and therefore can have their growth increased or diminished under certain conditions. A rich soil, with proper cultivation and suitable conditions as to heat, light and moisture, will increase the luxuriance of the growth of a plant; and, a poor soil, with deficient moisture and heat, will decrease the growth. The same conditions have an influence on the virulence of bacteria.

Pasteur found that the virulence of chicken cholera could be lessened by keeping the bacteria growing in their culture media until they became feeble and that such bacteria would not kill hens inoculated with them. He also found that he could increase the virulence of these attenuated bacteria by passing the infection through small birds, until the bacteria would again kill hens, when infected.

Several years ago a man working in Buffalo was quarantined on account of exposure to smallpox. As the disease was so slight that it did not make him sick, and he did not like the surroundings, he broke the quarantine and returned to his home in a small village in Canada, about a hundred miles from Buffalo. Two weeks after his arrival at home his two children broke out with an eruption that was diagnosed as chickenpox. They became quite sick and, as is usual in small villages, the neighbors came in and helped take care of them.

Shortly afterwards, one of these neighbors who had helped take care of the children had a miscarriage and died. The disease being still unrecognized, they had a public funeral, which was attended by the neigh-

bors generally and by a few people from a distance. This scattered the infection for some miles around and some of the cases were so virulent that it was called "black smallpox". My sister, who was on the ground at the time, tells me that there were forty or fifty cases and that fifteen deaths occurred before the disease was stamped out.

Here, apparently, the passing of the bacterial infection through the more tender subcutaneous layers of the skin of the children or, possibly, the infant in utero, caused the increased virulence of the infection, judging from Pasteur's ability to increase the virulence of the attenuated chicken cholera. Had the infections been confined to adults the disease might have assumed a less violent form.

Several years ago, while boarding at a hotel in a small town, I was requested to make a salve for some eruptions on the face of a waitress. On a closer inspection, I did not like the appearance of the "boils" and on making inquiries I was told that the lady had chickenpox and had such pustules on other parts of her body. As I had never seen an adult with chickenpox, I made further inquiries and found that a traveling man had stopped at the hotel, several weeks before, and, not feeling well, had called in a doctor and was told that he had chickenpox. As there was no hospital in the town, he was told to go back to the hotel and stay in his room until he got well. He was not very sick but stayed in his room for about a week, then bought himself a new suit of clothes and gave his discarded suit to the clerk who had carried him his meals.

About a week after the traveling man left, the clerk broke out in a few places, and felt so ill that he quit work for a week, but he was not sick enough to be confined to his bed.

About the time the clerk recovered, the hotel keeper and his wife broke out with the same "chickenpox" and were sick about a week, but hardly sick enough to stay in bed. Shortly after they recovered, this waitress, my patient, broke out with a few pimples which terminated in open surface sores that caused some pain but did not make her sick enough to cause her to stop her work.

Here we have a mild smallpox infection passing through at least four successive generations in adults, there being no children in the hotel to increase its virulence.

My diagnosis being smallpox, I notified the landlord and advised him to fumigate

and clean up the place to avoid a quarantine and, not wishing to be quarantined myself or to be classed as a "smallpox doctor", I left the hotel and the town. About two weeks later, I heard that they had quite an epidemic of smallpox in the town and that several families were quarantined.

As to whether any or all of these residents in the hotel had been vaccinated or not we have no means of knowing, but, if they had not, we would be left to infer that smallpox infection caught from adults would be of similar virulence to the previous infection and that the virulence of the infection was increased by passing it through children.

We see but one possible condition that would oppose the above conclusions and that is the possibility that the milk which was furnished the hotel was obtained from cows that had been infected with cowpox. In such a case, it is evident that the infection might have been virulent and that all of the infections in the hotel may have been of a virulent type and been controlled by the use of milk from immunized cows.

As to my conduct in leaving the hotel without making any formal report of conditions, I wish to say, in justice to myself, that two of the local physicians had diagnosed the cases as chickenpox and I, a mere temporary visitor, could not have made anybody in the town believe that a case of smallpox could be so mild as not to cause the patient to go to bed.

The village had less than a thousand inhabitants, and my discussion with the landlord took place before a dozen witnesses and was so violent that it resulted in my being ordered out of the hotel and my belongings thrown out after me. Under such circumstances, it is practically certain that every inhabitant of the town had heard the story before night. In these conditions, no formal report to the authorities seemed to be required.

W. S. GREGORY,

St. Joseph, Mo.

DEFECTIVE VISION AND PHYSICAL FITNESS

It is evident that the fitness of any individual will be impaired by any defect of the eye which prevents him from exercising to the best advantage any powers or faculties. The prevalence of eye defects was aptly demonstrated at the Optical Convention, 1926, held recently in the Imperial College of Science, London, when the results of

important research work on the eye were demonstrated by well-known experts.

The loss of efficiency due to faulty vision in the adult has been long recognized, but the loss of efficiency in the adult due to faulty vision of the child has only recently been given due consideration. Correction of a visual defect in the child will often greatly increase the physical fitness of the adult, even when the adult has still to wear lenses to correct the same defect, and every variety of defect may have an influence on man's fitness and well-being.

Unless a child has good and easy vision there will generally be some irregularities in actions or appearances, because the deficiency of the eyes will be compensated, so far as possible, in any way that the body can be used to do so. Consequently, when the child can see a little better by screwing up the eyes or by opening the mouth, it does so, habitually, thus breathing through the mouth instead of through the nose, with resulting disadvantages and troubles.

In reading and writing the head is often bent forward or to one side to get better results. This is accompanied by drawing up the knees, and so the whole body is curved, preventing the proper use of the lungs, and interfering with the stomach and digestive organs, even if the shape of the back-bone is not affected.

Such a child rarely plays and gets exercise as does one with good vision, for there is a disinclination caused by the inability to see properly, and thus the growing body is doubly handicapped.

Provision of corrective lenses for the eyes enables the little one to lead a healthier life while the body is growing and the faculties are being developed, greatly influencing bodily fitness.

"DOC."

A physician in Minnesota has suggested the utilization of a dignified protest against the employment of the appellation "Doc," which he would have printed on a card in sizable type, so that it might be framed and hung in the office for the common herd to read, absorb, and take unto itself.

The suggested protest contains a wealth of wisdom:

DON'T CALL ME "DOC"!

I am a Doctor of Medicine. My title is DOCTOR.

The word doctor means a teacher—a learned man—one schooled in a learned profession.

The degree of Doctor is the highest given by any university and indicates that its owner is to be classed with the most highly educated men.

Any man should be proud to possess this degree and to be designated "Doctor," but no self-respecting professional man desires to be called "Doc," which is a despicable mutilation of a most honorable title.

No other title is similarly abused. Does one ever hear the possessors of these titles called by an abbreviation—Pres(ident), Gov(ernor), Sen(ator), Cong(ressman), Gen(eral), Col(onel), Rev(erend)?

Cultured people never address a physician as "Doc," and other people should not do it.

No man is harmed by being so addressed, but when a person calls a physician "Doc," the doctor's opinion of him is lowered. When a physician is addressed as "Doctor," he recognizes the speaker as a person of superior intelligence, who respects himself, and honors the profession.

Drop "Doc" and cultivate Doctor.

REED & CARNICK.

"CHRONIC PROCTOCOLITIS"— A REJOINDER

A paper with the above title was sent to me by Dr. Jamison, asking for my comments thereon. I have no inclination to challenge the doctor's protocologic erudition, but the advice given in the paper may be followed by some novice in rectal work, with harmful results, and I feel obliged to respond.

The term "proctocolitis" is Dr. Jamison's own invention. He is the only proctologist, as far as I have observed, who uses it. The paper is a succession of assumed assertions: None proved, none sustained, by any experimental evidence.

The exploitation of a rectal injection apparatus, obsolete these many years, suggesting water at 125° to 134° F., or worse, at 140° to 150° F., as the therapeutic agent, is indefensible: First, because it has no real value; and, second, because it is positively dangerous.

Such measures are, it seems to me, to be classed along with such theoretical vagaries as that a quart or more of sea water injected into the rectum and colon, and then subjected to continued shaking on a special table designed to imitate the several rates of natural body vibration, will enable the system to take out of the bowel content

such inorganic salts as may be lacking. "Sea water, being the original medium from which all life has sprung, contains all the elements we need in perfect health." The sea-water-shaking cult is now reaping its harvest—in some of the larger cities.

The last paragraph of this paper is a dangerous one. It reads:

"It is necessary to use local applications of 25, 50 or 100 percent phenol to regions of the mucous membrane where ulceration exists and recurs from extensive induration of the tissues."

Applications of phenol in the strength mentioned must be neutralized with alcohol, or an extensive burn and slough are likely to follow. Ulcers in the rectum do not result from "extensive induration." Ulcers are the result of infection, and foci breaking down after invasion. A chronic proctitis and colitis prepare the soil, so to speak, for such invasion. Induration may be noticeable following the injection of the phenol solutions, for hemorrhoids, but these indurations never break down and ulcerate. Blisters may break open when incorrect technic is used, but such blisters are not indurations.

Unless it be the condemnation of that well-known national institution, the diaper—friend of our infancy—or the news that the human bowel should be evacuated *three times each day*, nothing new or important is said in the paper. My rejoinder is to warn your readers against the use of water at too high a temperature and to remind them that phenol must be used with protective caution.

CHARLES ELTON BLANCHARD
Youngstown, Ohio.

[The function of an Editor is to give his readers material which will be valuable to them, in an attractive and usable form. He is in no wise responsible for the opinions expressed by the authors who contribute the material, and frequently disagrees with them personally.]

We feel that our readers are entitled to know what is being done in the fields of medical practice, but we are not specialists in all lines and so can not pass upon the soundness of all procedures suggested in our pages. If an article sounds reasonable and useful, we pass it on to you. If there is anything in it that sounds dangerous, we check it carefully before accepting the article.

In the case of Dr. Jamison's article, mentioned by Dr. Blanchard (see CLIN. MED., Oct. 1926, p. 710), the temperatures men-

tioned seemed unduly high to us, but experiments showed that they could be borne by certain normal individuals and so we passed on the suggestions.

Now comes a man who has, for years, devoted his attention to rectal diseases and takes strong exception to Dr. Jamison's methods. We feel that you are entitled to hear his opinion, as that of a specialist. Then you can draw your own conclusions.

We lay no claim to infallibility or omniscience, nor do we hold any personal brief for any of our authors' ideas. If anyone whose experience entitles him to special authority in any line sees what he believes to be erroneous conclusions in any of our articles, we shall be glad to have him state his exceptions, briefly, courteously and clearly. This does *not* mean that we open our pages as a battle ground for controversial theorists, but that, on a question where two opinions are widely held, our readers are entitled to hear them both.

Dr. Blanchard has adduced no more evidence to back his assertions than did Dr. Jamison (space would not, of course, permit), but has probably had a wider experience in this line upon which to base his opinions.—Ed.]

EFFECT OF MOTION PICTURES ON THE EYES

The movies do not so often cause eye trouble as they reveal the existence of defects already present. In fact, under the best conditions, they have no harmful effect upon the eyes.

Watching motion pictures is *distance* vision, and differs from ordinary distance vision only in the prolonged concentration of visual attention. If the movies cause eye discomfort it is probable that something is wrong with the eyes.

The best conditions for the eyes of the patrons of movie theaters obtain:

1.—When the film is fresh and new and free from cracks, breaks and pinholes. (Old, worn films are hard on the eyes.)

2.—When the pictures were taken with a firmly placed camera and are projected with a rigid machine, so that there is no swaying, wobbling or flickering of the picture. (Any movement of the image, other than that of the proper action of the story, causes eye-strain.)

3.—When the operator is thoroughly trained for his job, so that pictures are always in sharp focus and the undimmed light of the projector is never permitted

to strike the bare screen. (Pictures which are in the least out of focus strain the eyes; and a flood of brilliant light, after the usual dimness, hurts them.)

4.—When no observer has to sit closer than 20 feet from the screen, raise the eyes more than 35 degrees above the horizontal or turn them more than 25 degrees to one side or the other.

5.—When the theater is not kept too dark; when all sources of glare or reflections are eliminated by having the walls and decorations finished in dull, flat colors and all lights carefully shaded; and when there are no sudden changes in the amount of light in the theater.

It should be remembered that headache, dullness and discomfort are not always due to eyestrain, but may be caused by poor or insufficient ventilation.

Those who frequently patronize movie houses should make a concerted effort to see that the management provides ideal conditions for all who indulge in this pastime.

GUY A. HENRY,
Director Eyesight Conservation Council.

CIRCUMCISION WITHOUT CUTTING

The great majority of male infants are born with a condition of more or less phimosis. At first glance, one is apt to assume that circumcision is essential, and many times this operation is needlessly performed.

The end results after amputating the redundant prepuce are not always good. If too much is removed, the glans is unduly exposed and is irritated by contact with the child's clothing. Frequently there is left a large bunch of loose tissue on the under side of the glans. This latter deformity persists throughout life, and was present in many men examined during the world war, who had been circumcised in infancy.

Phimosis in all boys, whether newly born infants or those several years old, can be corrected by the simple expedient of introducing the points of mosquito forceps into the small opening in the prepuce and stretching this opening by forced separation of the blades. The prepuce is then peeled from the glans with a grooved director in much the same manner that the hide of an animal is removed. When the glans is fully exposed, its surface is coated with sterile petrolatum and the prepuce is drawn forward and backward over it several times

to see that it can be retracted fully and easily, and the nurse or mother is instructed to perform this daily at bath time for the next month or two.

An anesthetic is not necessary, and the preferable time for operation is the eighth day of life, though it can be done with equal facility up to the age of three or four years.

R. STEWART MACARTHUR
Los Angeles, Calif.

[We have long felt that the routine circumcision of all male infants, as recommended by some writers, is a wholly indefensible practice.

The prepuce serves two useful purposes: It protects the glans from friction and consequent thickening of its mucous membrane, thus conserving the delicacy of its tactile sensation; and the prepuce itself contains many genital nerve endings, thus increasing the area of this specialized sensation.

There is no doubt that a phimotic, redundant prepuce is a pathologic structure which should be ablated, but it is impossible to determine whether this tissue is really redundant until the time of puberty; and we believe that the procedure advocated by Dr. MacArthur would obviate most cases of phimosis. We have performed this little operation ourselves, on a considerable number of cases, with the happiest results, and desire to add our voice to his in recommending it.

An ill-cared-for prepuce is, no doubt, a menace to health, and a man who does not think enough of this organ to take care of it does not deserve to keep it. On the other hand, we have yet to hear anyone recommend that the teeth of all young children be extracted because, in later life, they may be neglected and so lead to illness and an untimely demise.

Let us give our boy babies a fair chance by circumcising them without cutting anything off. Those who try this method, consistently, for a year, will never, we predict, go back to the cutting operation except in the rare extreme cases.—Ed.]

THE PRICE OF A LIFE VS. THE PRICE OF A CAR

C—R—A—S—H! A smothered scream. Then silence. The crowd began to gather around the smashed car which somehow had hit the curb, then a telephone post—and the crumpled figure of a young girl over

which bent a distracted man in chauffeur's uniform.

Through somebody's carelessness and an unfortunate swerve of the wheel, the twelve-year-old daughter of a bank president had been thrown through the windshield. Examination at the hospital proved injuries to the spine which paralyzed the body below the lumbar region.

A surgeon whose reputation had preceded him to almost every little village and hamlet in the country was called from the city. He made a diagnosis of fracture of a lumbar vertebra with an impaction of a fragment of bone transversely into the spinal cord.

"Do you think you can help my daughter?" asked the distracted father, tremulously.

"I cannot be positive about it, but the only hope is in an operation. I am, of course, willing to do my best," answered the eminent surgeon.

The operative work was skillfully done, and after six months of careful postoperative treatment the child was able to walk once more.

The tears of gratitude that streamed down the father's cheeks as he saw his only child walk again were enough to soften the heart of the most experienced surgeon. The banker took the surgeon to the train in a new limousine, which had evidently replaced the one in which the daughter had met disaster.

Several days later the banker received a bill from the surgeon for \$5,000 for services rendered—for the time, skill, patience, and service he had generously devoted to the little girl over a period of six months.

To the surgeon's surprise, the banker did not immediately remit. Instead a letter was received in which he was called a "highway robber" and libeled to the nth degree. What a price for a few visits and an operation! Why the surgeon must be crazy! Send another bill, and get out your pencil sharpener and get the figure down to reason. "No \$5,000 from me," said the banker.

The automobile salesman who sold the banker a new limousine to replace the smashed car had no trouble in collecting his check. Ah, no! That's different. That's business, my boy! And as the new limousine is parked carefully, so as not to scratch the new fenders, outside the bank, one cannot help but think that the surgeon made a mistake by not entering the automobile game.

For the banker was willing to buy a new car, but unwilling to pay for repairing his

only child. And a new car can be purchased every time the old one is smashed, while, had the surgeon erred in operating on the spinal cord, he never could have replaced his daughter.

What a queer world! And what queer people!

The automobile salesman gets his, without a murmur. The big, shining car outside looks like the money, all right. But the surgeon, who merely saved the little girl's life, was put off with a rebuff, and his reward, when finally it came through, was small and begrudged.

This is another case added to the long list of soft upper lips, nerves of India-rubber, and dish-rag spines with which some doctors are afflicted.

When the patient who can afford to pay, snorts and bounds, the poor physician truckles and bends.

Let the same rich patient ask his attorney to reduce his fee! The heavens will open, brimstone will rain, and the terra firma will rock in righteous indignation. Ten chances to one the attorney so annoyed will render immediately an additional invoice: "To shattered nerves which your request for a reduction superinduced, \$100!" Yes, and he will collect it, too.

Everybody gets his but the doctor, and he gets his where the bottle got the cork!

Still worse, the doctor attends hundreds of sufferers who are unable to pay anything—he attends them with the same loving care that is lavished on the rich, and in the rich man's doctor's bill is a hidden tax upon which the doctor relies for payment to recompense himself for time lost on gratis work.

How many lawyers, plumbers, mechanics or barbers did you ever hear of who worked for nothing because the customer was poor, in need of services and could not pay?

For heaven's sake, Doctor, keep a stiff upper lip—don't have a backbone made of boiled macaroni. Look your man in the eye. If you flinch or decrease the size of the original bill, you are lost—your patient will then be convinced that you tried to rob him and point to your compromise as proof that you acknowledged it.

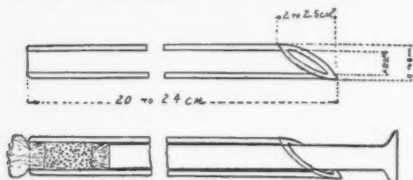
Human beings seem to value property higher than life—cars are worth more than daughters; fenders more necessary to keep in repair than spines.

The thought presses for expression that all this is most strange, inequitable, and difficult to understand.

REED & CARNICK.

A SIMPLE DEVICE FOR TREATING CERVICAL GONORRHEA

A simple device has proved of such great aid to me in clearing up some obstinate endocervical specific infections that I feel constrained to pass it on for the benefit of others who treat gonorrheal conditions in women. The device consists simply of a section of glass tubing, 20 to 24 centimeters in length, 5 to 8 millimeters in diameter, with an inside diameter of 2 to 6.25 millimeters. One end has a 2 to 2.5 centimeter bevel, while the opposite end is ground square with the sharp edge rounded off. The beveled end is designed to facilitate loading of the device and to minimize the soiling of hands or clothing with the medicament.



A device for treating cervical gonorrhea.

A glass rod for the larger sizes, and the long, round, wooden applicator for the small sizes, to act as a plunger, complete the apparatus. This device has the advantage of depositing medicaments in the structures affected, in a form far superior to those at present employed, and has proved of marked assistance in shortening the attack of cervical gonorrhea.

The tube is carefully dried, a small pledget of cotton is forced through the tube and packed tightly in the square end. From .05 to .15 gm. of the medicament is then introduced with the aid of a waxed powder paper, and another small pledget of cotton introduced with the aid of a suitable plunger.

The method of treatment is equally simple. The cervix is swabbed off with a saturated solution of sodium carbonate; the cervical canal is cleaned with the same solution on small swabsticks, carefully dried, and usually a 20 percent solution of nitrate of silver applied, followed by tincture of iodine. The canal is again dried and, the pledget of cotton having been removed from the end of the tube, it is applied to

the cervical canal and the contents expressed into the cervix. The small pledget is allowed to remain in the cervix, acting as a plug and thus retaining the medicament in the canal.

A cotton tampon is placed against the cervix, and this held in place by a lamb's wool tampon, and the whole allowed to remain until the next morning, when the permanganate douches are resumed. Occasionally Battey's solution is used alternately with the nitrate-iodine treatment.

The medicament consists of mercuriochrome 220 crystals, finely pulverized to prevent packing in the tube, or neutral acriflavine, either in the powder form or in the well-ground tablet. The objection may be raised that the introduction of this amount of a mercurial preparation into the cervix may possibly cause toxic symptoms, but when it is remembered that far larger amounts are introduced directly into the blood stream without harm, it will be seen that the objection is groundless. In an extensive use of this method covering a period of several years, it has not in a single instance produced any untoward effect.

The greatest criticism to which this method is open is that, due to the moisture in the cervix, the medicament packs in the end of the tube. This may be easily overcome by using a small amount of medicine proportionate to the diameter of the lumen of the tube. There is nothing to be gained by using larger amounts.

The tubes can be made in the office. They take but a few minutes to make and last indefinitely. A tube of proper length is cut with a file, and the bevel made by cutting the tubing on the coarse side of a No. 110 carborundum combination stone, finishing on the fine side. The sharp edge is likewise worked off on the stone. Three-in-one oil is used as a lubricant. It is surprising how easily the glass works on this stone. The tubing may be obtained from any scientific supply house. It is sold by the pound, and fifty cents worth will last several years.

A. POSKA,

Seattle, Wash.

Reprinted from *Northwest Medicine*.

The Leisure Hour

Conducted by GEORGE H. CANDLER, M.D.

Thro' The Dark, Light

THE day is dark and a bleak wind whines
Thro' the naked larches and rusty pines;
A white pall covers the Northern hill
And the brook is frozen—its music still.

No leaf, no flowers, no living thing
Astir on the earth, not a bird awing;
Beauty and fragrance and song have fled,
Winter has come—and the world is dead!

Somber the picture, but still we know
That a new life's dawning beneath the snow,
That "Death" to Nature but means rebirth
And green in the Springtime shall be the earth!

When we see these changes thro' out the years,
Why darken the present with needless fears?
Today may look black as a raven's wing;
Have *faith* and tomorrow shall come *your* Spring!

—G. H. C.



The "Dear Old Thing"

ONCE upon a time (not so very long ago either) there lived in a beautiful old house, surrounded by trees and flower beds, a decidedly elderly lady. She had raised a baker's half dozen of children and had survived a good but non-romantic husband some years. Everyone knew her (YOU knew her—she didn't live far from you) as "a dear old thing". She was all that and more. She was also perfectly happy and contented and after fussing with her flowers, petting everyone else's children, giving counsel to such slightly older but still very young creatures as confided their secrets to her, she would twist up her hair (she still had it), don a flannelette robe de nuit, say her prayers and go to sleep quite certain that the Deity was in His Heaven and all was right with the world.

On Sunday and Wednesday evenings she went to church and listened earnestly to the pastor: stopping always, after the service, to tell him how much she had benefited by his sermon and to "be sure to come in soon and have a cup of tea" with her. The time was when she would have said "Elderberry wine and cake," but, being a dear old thing, she respected the 18th amendment and let the robins eat her berries. She had tried to jell them but the results were not good. Moreover, one of the glasses fermented and after eating a little she imagined she felt "a little heady", contrary to said amendment. So, quite abashed, she made no further attempts along that line. Indeed, so "good" and sincere was she that she handed one of the deacons the prized bottle of Apricot brandy she had kept "for emergencies" and asked him to dispose of it. The deacon sensed an "emergency" on the way home and complied with her wishes. Very many times that night he confided to his family that this lady was undoubtedly "th' dearisht ol' thingsh in the worldsh". You will agree with him that she really was.

Then, all of a sudden, the serpent, in the shape of a traveling "Woman's Uplift" lecturer, came into the peaceful Eden. The "dear old thing" attended one lecture out of curiosity; went to the next because she wanted to accumulate another earful of wisdom and finally bought a season ticket for a whole course of "uplift" afforded by an aggregation of advanced females in the nearby city. Slowly at first, but very, very surely, the "dear old thing" began to change. She read books on repression and the need

of self-expression and to those who would listen, she expressed her new thoughts quite volubly—almost violently at times. Then, after a critical examination of her face in a mirror, she had her hair bobbed and spent \$13.43 upon a line of beautifying agents and toilet essentials which would (properly used) make a Hebe out of Hecuba. Truly she was advancing.

The first Sunday thereafter that she appeared in church she created a profound impression. In place of the usual decorous, but somewhat negative hat, she sported a toque of cloth-of-gold with a hummingbird on the port side. Her hair had been miraculously changed from silver to gold and her complexion—oh! my dear, you can't guess the half of it! It was like a "Colorado Sunset" by Cox. The "dear old thing's" pastor looked her over, preached the worst sermon he had ever delivered and hurried from the vestry to meet his parishioner at the door and expostulate with her.

She saw him coming and swam (yes, *swam* is the word) to meet him with cheerful chatter to the effect that never, no never had he been so absolutely lovely and tomorrow evening he must—simply *must*—come over and try the wonderful Scotch she had secured—with the deacon's aid—from an Irish truckman, whose first cousin was a stoker upon a tramp steamer which came direct from Loch Lamond—"where the Dewars, you know, produce their Glenlivet!"

Glassy-eyed and stricken speechless, the pastor fled—but it is recorded that oft thereafter did he visit the wandering one and try to win her back to normalcy. It was useless: she enjoyed his visits, led him to talk about Freud (which he did after guiltily reading up on his theories) and tried to persuade him that if he learned to Charleston he would be able to get closer to the younger members of his congregation—which was fundamentally true, of course. "Human contact, dear man", said the lady, "is, after all, the main thing. How can you, unfamiliar with conditions as they really are, lead people who need guidance? What chance have you, old thing, to make a lasting impression on minds which travel a road you have never even dreamed of? You've been asleep for at least a decade and if you don't want to emulate Rip V. Winkle (no relation to Winnie) you wake up and talk turkey while the talking is fair to medium. Mere talk in my opinion, dear man, will never be

really GOOD again. You must "mix in" and "do your stuff" as opportunity offers. Get me, old thing?"

The petrified pastor decided that he did "get" her—and he "got", quite determined never again to attempt to save this particular brand from the burning. On the way home it flashed upon him suddenly that there were a whole lot of brands—the main difference in "the dear old thing's" case, being that she had lit up so suddenly and so late in the day!

That she had determined to go the whole way and be a woman capable of full self-expression was further demonstrated the next week when she appeared in tight skirts (ending one inch above the patella) orchid-ash gossamer stockings and lizard skin pumps! It was decidedly cold that Sunday and the "dear old thing" shivered sickeningly, but she bravely powdered her nose, added a further touch of carmine to her lips and winked cutely at the deacon when he passed the plate! As a result, he dropped that receptacle and let fourteen nickels, two dimes, eleven pennies and one quarter go into circulation on the floor.

The next Sunday two more antiques (one of them a spinster) showed by their get-up that they felt "the need of self expression" and the pastor groaned at his helplessness. Another week and the Ladies of the Sewing Circle assembled in the parish-house, almost came to blows in attempting to decide whether the formation of a local Advanced Woman's Guild would, or would not, be desirable. Mrs Bump asseverated that she was for anything which would give her more freedom, and Mrs. Jump succinctly stated that she would be a charter member provided she could treat J. as he should be treated, without being misunderstood and criticized by other women. Mrs. Hump (the sexton's wife) said she was continually dreaming about dead people and that if the study of Freud would help her she was for the guild. The pastor's wife at this point interjected the remark, that "it was better to dream of dead ones than to live with them"—and then the trouble started! To this day no Society could be formed in that town embracing *all* the Ladies of the Sewing Circle. The "dear old thing" had started something indeed. Having started it she evidently decided to go the whole journey and, about the time the fourth consignment of Dewars' Bonnie Brae had disappeared, she and the Deacon vanished also.

The erstwhile beautiful old house *now*

looks like the wreck of the Hesperus and Canada thistles grow where formerly glorious Glads gleamed and glinted. If, unaware of past events, you ask a native "who lived there?", he will look at you and sharply reply,—**"A DARNED OLD FOOL!"**

Moral—Actions alter appellations.

G. H. C.

PROMISE YOURSELF

To be so strong that nothing can disturb your peace of mind.

To talk health, happiness and prosperity to every person that you meet.

To make all your friends feel that there is something in them.

To look on the sunny side of everything and make your optimism come true.

To think only of the best, to work only for the best, and to expect only the best.

To be just as enthusiastic about the success of others as you are about your own.

To forget the mistakes of the past and press on to the greater achievements of the future.

To wear a cheerful countenance at all times and have a smile ready for every living creature you meet.

To give so much time to the improvement of yourself that you have no time to criticize others.

To be too large for worry, too noble for anger, too strong for fear, and too happy to permit the presence of trouble.

To think well of yourself and to proclaim this fact to the world—not in loud words but in great deeds.

To live in the faith that the world is on your side so long as you are true to the best that is in you.

Before speaking think carefully whether what you are going to say is true, kind and helpful; if it has not these three qualities, do not say it.

E. S.

A DANGEROUS ILLNESS

An old negro, riding on a train, fell asleep with his mouth wide open. A mischievous drummer came along and, having a convenient capsule of quinine in his pocket, uncorked it and sifted the bitter dose into the old negro's mouth at the root of his tongue. Soon the darkey awoke and became much disturbed. He called for the conductor and asked: "Boss, is dere a doctor on dis here train?" "I don't know," said

the conductor, "Are you sick?" "Yas, suh, I sho' is sick." "What is the matter with you?" "I dunno, suh, but it tastes like I busted my gall."

WHAT IS IT?

"What kind of store is that fellow over at Toad Rock running?" asked a motorist.

"Well, he has Ford parts for sale," replied the attendant in the filling station at Ten Degrees, "buys butter, eggs, and poultry, deals in real estate, paints houses, marries folks in his capacity as justice of the peace, runs the postoffice, sells stamps, hams, molasses, etc., and takes boarders upstairs. I reckon you'd call it a drug store.—*Med. Pocket Quarterly.*

One day a very pretty young lady who had a poodle dog in her lap chanced to be riding on a street car. A bluenose lady sitting next to the girl addressed her thusly: "My, what a nasty little dog. Don't you think, my young lady, it would look much nicer if you had a little baby in your lap?"

"No," the pretty one replied in calm, even tones, "it wouldn't. You see, I'm not married."

A soap manufacturing company advertised a contest for slogans. They also made perfume. Here is a slogan that came in which they could not use. It read: "If you don't use our soap, for heaven's sake use our perfume."

First Co-ed (noticing sign in the library): "Only Low Talk Permitted Here."

Second Co-ed: "Fine, now I can go on with the story I was telling you."—*Oklahoma Whirlwind.*

HIGH COST OF LIVING

A tourist from the east had stopped to change tires in a desolate region of the south.

"I suppose," remarked the tourist, "that even in these isolated parts the bare necessities of life have risen tremendously in price?"

"Y'er right, stranger", replied the native, "and it ain't worth drinkin' when ye git it".

—*Exchange*

A .45-caliber revolver had been fired at him, the bullet penetrating his skull and entering the woodwork.—*Tampa paper.*

There once were some learned M.D.'s
Who captured some germs of disease
And infected a train,
Which, without causing pain,
Allowed one to catch it with ease.

—OLIVER HERFORD

An enterprising tradesman sent a doctor a box of cigars which had not been ordered, with a bill for six dollars. The accompanying letter stated that "I have ventured to send these on my initiative, being convinced that you will appreciate their exquisite flavor."

In due course, the doctor replied: "You have not asked me for a consultation, but I venture to send you three prescriptions, being convinced that you will derive therefrom as much benefit as I shall derive from your cigars. As my charge for prescriptions is two dollars, this makes us even."

—R. & C.

AND THE CHINAMAN SMILED BLANDLY

Of course, it's an old story, but old stories, as we've found, are great producers of laughter. So now you can read about what happened to a tramp who knocked at the kitchen door of a Portland home one day, where he was greeted by a smiling Chinaman.

"Say, John," croaked the tramp, "give me a hand-out, for the love o' Mike, will yer? S'elp me, I'm starvin'."

"Like fish?" inquired the Chinaman, with a bland smile.

"Betcha sweet life I like fish," said the tramp eagerly.

"Call Fliday," said the Chinaman, and still smiling blandly he shut the door.—*Patchwork.*

Diagnostic Pointers

DIFFERENTIAL DIAGNOSIS OF DIABETES

Renal Diabetes

(Non-Diabetic Glycosuria)

Cause: Low renal threshold.

Age: More prevalent in youth. Has a familial tendency.

Symptoms: None. Usually discovered accidentally.

Laboratory Findings: Normal or sub-normal blood-sugar; constant glycosuria unaffected by dietary restrictions.

Treatment: None.

Prognosis: Good. Disease is practically harmless.

Diabetes Mellitus

Cause: Pancreatic deficiency or degeneration.

Age: All ages. Most frequently encountered in young adult life. May be hereditary factor.

Symptoms: Polyuria; thirst; extreme emaciation and fatigue; a tendency to cutaneous eruptions; pruritus; bulimia.

Laboratory Findings: Glycosuria; hyperglycemia; high urinary specific gravity with increased amount; acidosis.

Treatment: Supervised dietary; reenforcement of pancreatic function; insulin as an emergency measure.

Prognosis: Poor in children; fair in adults, particularly if taken early.

Diabetes Insipidus

Cause: New growths of the hypophysis; trauma of the head; hypopituitarism—posterior; renal abnormality.

Age: More common at puberty; particularly in males.

Symptoms: Polyuria; anhidrosis; thirst; subnormal temperature; hypotension; somnolence and fatigue; increased sugar tolerance.

Laboratory Findings: Increased quantity of urine; low specific gravity; sugar-free.

Treatment: Injections of posterior pituitary substance; reduced fluids; salt-free diet.

Prognosis: Usually good, depending on the cause.

—*The Hormone.*

FEAR OF CANCER

When a woman comes to a doctor with some trifling ailment it is sometimes merely an excuse to get an opinion as to whether she has cancer, which she fears. She wants a complete examination. Her breasts can be examined while palpating and percussing the chest and if no signs of malignancy are found it is always well to tell women this.—**SIR BRUCE BRUCE-PORTER**, in the *Practitioner*.

MASTOID DISEASE AND VERTIGO

Mastoid disease may give rise to vestibular symptoms—vertigo, nausea, etc.—which are frequently diagnosed and treated as disease of the stomach, eye-strain, nervousness or some other condition.—**DR. JOSEPH BECK**, of *Chicago*.

STOMACH DISORDERS AND SYPHILIS

Inquire closely into the possibility of syphilis in every stomach case which proves refractory, and if you can elicit a history of syphilis, or are even suspicious of such a history, put the patient on active treatment before resorting to surgery.—**Urol. & Cutan. Rev.**

EDEMA IN PREGNANCY

Moderate edema, developing slowly during pregnancy, is rather salutary than otherwise as it tends to detoxicate the patient's blood.

Edema, of whatever extent, which develops suddenly is always a danger signal of impending toxemia.—**DR. KARL THORSGAARD**, *Chicago*.

REPEATED CORYZAS

The occurrence of repeated coryzas usually indicates that some chronic trouble is present or some sinus or ear complication is likely to follow.—**DR. ASHLEY W. MORSE**, in *Am. Otol Rhinol. & Laryngol.*

WHOLESALE AND RETAIL TREATMENT

Today one who consults a doctor for a sprained ankle is likely to lose both teeth and tonsils, and one who seeks professional help for a lame back or for any one of a

variety of ailments, and who applies to a modern hospital, well manned by recent graduates of medicine who have not yet learned to think in retail concerning individual patients, is exposed to the inconvenience and possible danger of a lumbar puncture.—DR. H. A. HARE, in *Therap. Gaz.*

CAUSE OF MENTAL DISTURBANCES

Mental disturbances are the result of the reaction between the patient and his environment. Each individual is the sum-total of the successive reactions between him and his environment from the day he was born.—DR. NORMAN VINER, in *Canad. M. A. J.*

GONORRHEA IN THE FEMALE

If you can express pus from the openings of Bartholin's glands you can make up your mind that the infection is gonorrheal.—*Urol. & Cutan. Rev.*

SYPHILITIC BABIES

Syphilitic children are notoriously sickly. They pick up colds and have otitis media, pneumonia and other nonsyphilitic infections with regularity.—DR. P. H. SYLVESTER, Boston.

HYPERTHYROIDISM AND SUGAR METABOLISM

In hyperthyroidism there is frequently an increase in the blood sugar and occasionally even glycosuria. In the opposite condition, myxedema, the pancreas is allowed full sway and confers a high degree of sugar tolerance upon the patient.—DR. HENRY R. HARROWER.

BLOOD COAGULATION TIME IN DERMATOSES

The clotting time has been found abnormally long in several skin diseases, especially in eczema. In 5 cases of chronic eczema the coagulation time was from 53 to 66 minutes. In 17 normal persons the range was from 35 to 39 minutes.—DR. J. VON DESCHWANDEN, in *Dermat. Wchnschr.*

METABOLISM TESTS

Conditions which raise the basal metabolic rate above plus 10 percent are: Fever; certain blood diseases, especially leukemia; cardiac decompensation; certain types of hypertension; thyroid disease, exophthalmic goiter, toxic adenoma and hyperthyroidism; crinitism; endogenous obesity; and certain cases of hypopituitarism.

FREE FLUID IN PLEURA

Dullness and decrease in the intensity of the breath sounds high in the axilla on the affected side suggests free fluid in the pleural sac, the amount of fluid present being roughly proportional to the degree of dullness and decrease in the sounds.

Dullness with increased breath sounds in the same area suggest consolidation rather than fluid.—DR. MARTIN LASERSOHN, in *Archiv. Int. Med.*

THE BEGINNING OF A MATERNITY CASE

The layman must be made to realize that a labor case begins at the time of conception and that it is important for the pregnant woman to consult a physician as soon as she knows she is pregnant. Once the patient is in the hands of a physician, the responsibility rests largely upon him.—DR. J. P. GREENHILL, in *M. J. & Rec.*

MEDIAN NERVE LESIONS

Produce passive hyperemia of the affected part with a sphygmomanometer sleeve at diastolic pressure. If the median nerve is affected, the part will become red after one minute (instead of mottled—the normal condition), and this redness will gradually deepen to extreme cyanosis after 20 minutes. This test can not be feigned by a malingerer and appears early.—DR. DENNIS CRILE, in *Surg. Gyn. & Obst.*

SIGNS OF INTRACRANIAL HEMORRHAGE IN THE NEW-BORN

The most frequent signs of intracranial hemorrhage in the new-born are: twitchings of the hand, cyanosis, poor nursing, convulsions, unusual drowsiness, rigidity of the extremities, jaundice and respiratory difficulties.

Capon mentions: oral pallor, nystagmus, ocular palsies, pupillary inequalities, myosis, ptosis, yawning, sighing, exaggerated reflexes, erection of the penis and wrinkling of the scrotal skin.

Whenever a new-born baby shows any of these signs, following a labor of the type in which such hemorrhages are common, it is advisable to perform a lumbar puncture for diagnosis.—DR. MACLAIRE, in *M. J. & Rec.*

THE RECTUM AND ASTHMA

It is entirely possible that hemorrhoids, anal fissures and other rectal abnormalities may have a distinct influence in causing

asthmatic attacks. All such cases should be given a thorough rectal examination and any abnormal conditions found should be corrected.—DR. W. B. WALLACE.

TUBERCULOSIS OF THE PROSTATE

It is almost impossible to make a clinical diagnosis of tuberculosis of the prostate and seminal vesicles in the early stages. Manifestations of the disease in the epididymis, if it has spread from the prostate, will become clinically evident first.—DR. JOSEPH WELFELD, in *Bul. Municip. Tuberc. San., of Chicago*.

TETANUS

Early signs justifying a diagnosis of tetanus are: Muscular rigidity, painful cramps or spasmodic muscular twitching in the vicinity of the wound; difficulty or delay in swallowing or in opening the mouth; increased rigidity of the facial muscles (spastic smile), and inability to protrude the tongue properly; increased reflex excitability (knee and ankle jerks, ankle-clonus, etc.); difficulty in micturition; and the occurrence of occasional generalized spasm.—DR. C. WORSTER-DROUGHT, in the *Lancet*.

"STAIR" SIGN IN TABES

In the early stages of tabes the ataxia may be very slight. Have the patient descend a staircase with his eyes open but not looking at his feet. In some cases it is well to have him close his eyes. The examiner observes whether the gait is normal or unsteady. This is a delicate method for

observing ataxia or defects of muscle and joint sense at an early stage, when treatments is most hopeful.—DR. J. A. HODGES, in *Virginia Med. Monthly*.

SIMPLE GOITER

Simple goiter is not a hypertrophy, but essentially a degeneration of the thyroid gland. The gland is not overactive, but underactive.—DR. JAMES BERRY, in the *Lancet*.

BLEEDING IN GASTRIC ULCER AND CANCER

In gastric ulcer the hemorrhage is intermittent. In cancer, if any bleeding occurs, it is continuous.—DR. KARL L. THORSGAARD, of Chicago.

"DYSPEPSIA" AND HEART DISEASE

In many cases of organic heart disease, "dyspepsia" is one of the earliest clinical manifestations, appearing, sometimes, several years before the classical signs can be demonstrated.—DR. KARL L. THORSGAARD, of Chicago.

MENTAL HEALTH

Just as there are varying degrees of physical health, so there are of mental health, and these variations are not absolute but relative; so that when one speaks of neuroses, psychoneuroses, neurasthenia, hysteria or psychoses, one is dealing, in a general way, with various shades of the same condition.—DR. NORMAN VINER, in *Canad. M. A. J.*



Current Medical Literature

ACRIFLAVINE INTRAVENOUSLY IN GONORRHEA

A systemic treatment for gonorrhea has long been sought, and H. Jausion and his associates seem to have found it in acriflavine. They report the results of 1,147 intravenous injections given in these cases in the *Bul. de l'Academie de Med.* for June 2, 1925.

In office cases, they place 5 cc. of a 1:50 (2-percent) solution of acriflavine [neutral acriflavine might be preferable.—Ed.] in distilled water in a 20-cc. glass syringe, insert the needle in the vein and draw the piston back, mixing the solution with the patient's blood; the whole is then slowly injected. The injections are repeated thrice weekly.

In hospital cases more sustained results seem to be obtained by injecting 5 cc. of a 1-percent solution every day.

This treatment is continued until the symptoms are controlled, which requires, on an average, 15 injections in early cases, 20 in established and 30 in chronic cases. No urethral injections are needed and dietary indiscretions have little influence.

Out of 67 cases treated by this method, 37 (55.2 percent) were completely cured, clinically and bacteriologically; 15 (22.3 percent) showed good results; 11 were improved; and only 4 (6 percent) were complete failures. This result is surprising in view of the fact that many of these cases had previously had numerous recurrences and reinfections.

The reactions from these injections are slight and transient, no severe reaction occurring in this series. After a number of injections the skin usually takes on a very slight yellowish tint, which fades when the injections are discontinued.

This treatment is particularly useful in women, where the infection is widespread.

NOMENCLATURE OF TUBERCULOSIS

Many physicians use words and abbreviations so loosely in discussing tuberculous conditions that the article by Dr. Walter H. Waterson, of Maywood, Ill., in *Bul. Chicago Municip. Tuberc. San.* for October, 1926, is timely and helpful. Here are some of his statements regarding standard nomenclature:

Tubercular means a wart-like growth, due to any cause and should never be used in speaking of infections with the tubercle bacillus. These latter conditions are *tuberculous*.

Phthisis is the terminal stage of active tuberculosis or consumption, when the patient is greatly emaciated and almost moribund.

Hemoptysis is a pulmonary hemorrhage exceeding a teaspoonful. Less than this is simply spitting of blood. Hemoptysis is always considered of tuberculous origin unless proved to be otherwise.

Pulse and Temperature. A tuberculous patient is considered to be febrile if his temperature is above 99° F. (99.5° for women) and his pulse above 90 (96 for women) for three days out of seven.

An active case is one showing clinical symptoms of toxemia—fever etc. An open case is one in whose sputum tubercle bacilli are found.

The term "*Minimal*" should be used instead of "*Incipient*", in describing early or mild cases of tuberculosis. The expression "*Apparent Cure*" should be applied to those cases which have been free from all clinical manifestations of the disease for some time.

The following abbreviations are accepted as standard: *Tb.*, for tuberculosis; *Tbc.*, for tuberculous; and *T. B.* for tubercle bacillus.

IRRITABLE COLON

In the *Southern M. J.* for April, 1926, Drs. M. L. and Ghent Graves of Houston, Tex., call attention to the fact that there is a large group of cases of chronic intestinal indigestion, dyspepsia, spastic constipation, hypoaclidity, hyperacidity and neurasthenia, which it would be better to class as cases of irritable or disordered colon.

These cases are more frequent among the slender, ptotic type of individual and present one or more of the following signs and symptoms:

- 1.—Gas (usually in the lower abdomen).
- 2.—Constipation (with established cathartic habit).
- 3.—Pain, around umbilicus usually, and associated frequently with a rumbling sensation.
- 4.—Symptoms made worse by foods giving a rough residue (i.e. cabbage, apples and pears).
- 5.—Loss of appetite and consequent loss of weight.
- 6.—Nausea and vomiting in extreme or neurotic cases.
- 7.—Stools of mushy consistency.
- 8.—Test enema of 2-3 quarts of tap water usually produces the pain or discomfort complained of.
- 9.—X-ray shows spastic colon in large majority of cases.
- 10.—Proctoscopic examination may or may not reveal ulceration.
- 11.—Slight rise of temperature (100-102° F.) and leucocytosis (10,000-15,000) in cases of ulceration.
- 12.—May give history of one or more abdominal operations without relief of symptoms.

13.—The pathology is intimately linked with the pathologic physiology of the large intestine about which we know very little. The best viewpoint is that advanced by Emery, who chooses to think of the increased activity as due to an increase of stimulus (as in cases using strong cathartics) or as due to a decrease in the normal threshold stimulus (as seen in cases where the mucous membrane is ulcerated).

Treatment consists of:

1.—Removal of excitants or stimulants (i.e. alcohol and spices).

2.—Rest in bed.

3.—Diet, excluding foods giving a rough residue (i.e. fruits and rough vegetables).

4.—Tincture of belladonna grs. 10 to 20, three to four times a day.

5.—Mineral oil for bowels, and, if necessary, tap water enemas of not over 500 cc.

6.—Heat to abdomen.

7.—Treatment of underlying psychosis or neurosis where present.

The prognosis is good, except where there is an ulcerative process due to chronic ulcerative colitis, to cancer, or tuberculosis or cases of dysentery, which often are very stubborn and difficult.

URINARY ANTISEPTICS

In an article by Drs. Veader Leonard and Austin Wood, of Baltimore, dealing with the present status of hexylresorcinol and published in the *Med. Rec. and Annals* for August, 1926, they appear to sum up the case for internal urinary antiseptics in such a general manner that their conclusions seem well worth quoting, for the reason that they may be applied to other substances recommended for this purpose, as well as to hexylresorcinol.

Urinary infection is no more a clinical entity than hematuria or pyuria. It is merely a warning signal demanding thorough investigation by the trained urologist. No internal urinary antiseptic, however ideal, can be used intelligently without a thorough knowledge of the underlying pathologic condition responsible for the urinary infection. A functioning kidney is the first necessity. Foci of infection, which may be a constant source of reinfection of the urinary tract, must be searched out and dealt with. Defective drainage at any point in the urinary canal must be corrected by appropriate measures, for even though it is possible to disinfect the urinary tract completely by means of hexylresorcinol in certain instances, even in the presence of these obstructions, to leave the patient with urinary stasis is to invite reinfection.

The fact needs no emphasis, however, that after removal of all discoverable foci and after full correction of all defects in urinary drainage, a large proportion of chronic urinary infections persists in spite of the most thorough application of all of the measures heretofore at our command. On the basis of our clinical experience with hexylresorcinol during the last eighteen months, it seems reasonable to expect that this drug will find its greatest field of use-

fulness in this group, regardless of the infecting agent.

Even with these considerations in mind, the best results will follow only the strict observance of four controlling factors in the use of hexylresorcinol, all of which bear a close relationship to considerations of surface tension:

1.—The dosage must be adequate. On less than from 0.45 to 0.6 gm. three times a day immediately after each meal, the surface tension of the urine will not be lowered sufficiently to obtain the maximum disinfectant action.

2.—Fluids must not be forced. This procedure raises the surface tension of the urine, and thereby robs it of its bactericidal action. In many instances, quantities of water may be a prime necessity. Under these circumstances it is just as well to postpone active antiseptic therapy until the amount of fluid ingested can be safely reduced.

3.—Sodium bicarbonate is contraindicated for the reason that it raises the surface tension of the urine, and, like large quantities of water, thereby robs the urine of its bactericidal properties. Hexylresorcinol is equally efficacious in alkaline and in acid urine.

4.—The course of treatment with hexylresorcinol must be sufficiently prolonged. Among the organisms commonly found in urinary tract infections, those which are most resistant to surface tension changes in the test tube (colon group) are most resistant to the action of hexylresorcinol in vivo. Urinary infections by *B. coli* and related types ordinarily require from sixty to ninety days' continuous treatment with the drug. If combined with the usual local measures, the course of treatment will be shortened and the percentage of ultimate cures increased.

RESULTS OF OPERATIONS FOR UTERINE PROLAPSE

Patients suffering from prolapsus uteri are eager to know what are the prospects for relief by operation; and their physicians should understand what procedures give the best results.

In *A. J. of Obst. and Gyn.* for May, 1926, Dr. Edward A. Bullard, of New York, summarizes the results obtained in 361 cases operated upon at the Woman's Hospital. The results are tabulated below:

	Complete Success	Qualified Success	Good Results
Watkins Operation.....	63.6%	32.4%	96.0%
Mayo Operation.....	76.0%	18.0%	94.0%
Vaginal Hysterectomy.....	78.3%	17.5%	95.8%
Vaginal Plastic Operations.....	75.3%	22.2%	97.5%
Vaginal and Abdominal Operations.....	76.7%	16.0%	92.7%
Abdominal Operation (7 cases).....	57.1%	14.3%	71.4%
Emmet-Baldwin Operation (4 cases).....	100.0%		100.0%

Most gynecologists have now ceased to attempt to cure uterine prolapse by any form of suspension or fixation by the abdominal route. Careful reconstruction of the various planes of the pelvic fascia is

essential for the proper operative treatment of prolapse. The table shows clearly that about 95-percent of these cases are cured by some form of vaginal plastic surgery, the cases listed as "qualified successes" showing, as a rule, only minor defects or symptoms and very few requiring subsequent surgical treatment for this condition.

DIATHERMY IN ANGINA PECTORIS

After careful study of the question, Dr. A. E. Joslyn, of Lynn, Mass., is of the opinion that, carefully handled, diathermy is a valuable aid in the treatment of angina pectoris, whether due to coronary disease or to so-called aortic fatigue.

In *Archiv. Phys. Therap. X-Ray Radium* for April, 1926, he states his reasons for this belief and reports several cases so treated.

His technic is as follows:

Have a plate cover the heart and aortic arch area over the chest and one about twice as large opposite, over the back. Treatments are mild at first, using no more than 25 milliamperes per square inch of the smaller plate, and continuing about twenty minutes after reaching this maximum. Gradually both time and strength are increased until about 75 milliamperes per square inch is used for forty minutes.

Dr. Joslyn feels that the cases receiving the most benefit are those with some elevation of blood pressure and no other serious signs of a failing myocardium, except pain and discomfort on exertion. Persistent alternation of the heart he regards as unfavorable, and expects no benefit in such cases. Cases of low blood pressure are relatively resistant; improvement is obtained, although it is slow, and the patient needs caution as to placing confidence in the treatment to the exclusion of needful rest. If both patient and family in these cases are aware of the resistant nature and seriousness of the condition, and in case of sudden death will not blame the treatment for the fatality, he advises diathermy and persists in its use.

MAGNESIUM SULPHATE INTRAMUSCULARLY IN ECLAMPSIA

DR. LEE DORSETT reports in *A. J. Obst. and Gyn.*, XI, 1926, p. 227, on the intramuscular injection of magnesium sulphate in thirty-eight cases of eclampsia. He gave 15 cc. of a 25-percent solution as the initial dose, injecting deeply into the gluteal muscle and using it to the exclusion of other forms of treatment except the introduction of 60 cc. of saturated solution of magnesium sulphate into the stomach for its purgative action, and in the majority of cases the use of a hot pack. The injection was repeated only seldom at hourly intervals, the reception being guided entirely by the frequency and severity of the convulsions and the general condition of the patient. Several of the cases received as much as 100 cc. of the solution within twenty hours, without any perceptible untoward reaction.

In regard to the action of the drug, it

was more rapid where the patient received the injections early and had only a few convulsions; in several instances there were no more convulsions after the first injection; and in the majority of cases there was a marked relaxation of all the voluntary muscles.

The author concludes that:

(1) The intramuscular injection of magnesium sulphate in 15 cc. doses of a 25-percent solution will control the convulsions of eclampsia.

(2) 15 cc. as an initial dose is not toxic.

(3) This method not only relaxes the patient but also decreases the intracranial pressure by relieving the cerebral edema, stimulates diuresis, and aids in the diminution of the general edema.

(4) Eclampsia is primarily a medical condition, and secondarily an obstetric problem.

(5) Any method for hastening the delivery of the patient is not only unnecessary but adds greatly to the morbidity of the case.

EFFECT OF PARAFFIN OIL ON THE INTESTINE

Röntgenologic study by Anna Lanczos showed that paraffin oil hastened the passage of the chyme through the stomach and small intestine. The peristalsis of these organs is visibly strengthened, otherwise there is no visible change in the digestive mechanism although there is a stimulation of defecation motility. These facts indicate that the oil cannot be considered as simply a lubricating agent. The closure of the pylorus induced by morphine is almost without exception weakened or abolished by paraffin. That paraffin oil may conceivably exert other effects is suggested by the fact that a cat of 1.4 kg. which received 200 cc. of pure paraffin oil showed somnolence and ptosis, and died on the fourth day. This indicates that a slight resorption is possible, but whether the oil is resorbed or is first broken down in the intestine is unknown, although it is recognized that a bacterial decomposition is possible.—(*Arch. exptl. Path. Pharm.* through *Chem. Abstracts*).

INVISIBLE FORMS OF PATHOGENIC BACTERIA

According to R. Friedberger, it is rarely possible in the early stages of an epidemic to cultivate the microorganisms to which the epidemic is ascribed. Only in the later stages, when the aggressiveness of the invasion has subsided, is it possible to isolate the microorganism. This is due to the fact that the original, virulent invader is an invisible, non-cultivable virus that is later converted into the cultivatable, and comparatively harmless, visible microorganism. The conversion of the one into the other form of microorganism is reversible. Although it is not always possible to immunize guinea pigs against typhoid fever by repeated injections with dead typhoid

bacilli, this can always be accomplished if the immunization is carried out with small amounts of tissue from an infected animal, although the tissue does not contain visible microorganisms. The invisible virus is far superior, as an antigen, to the visible microorganisms. The existence of microorganisms in these two distinct forms, with possible intermediate stages, has been proved for several bacteria and is assumed to be a general phenomenon.—(*Klin Wchuschr.* through *Chem. Abstracts*).

DIET IN GASTRIC ULCER

A very simple diet for the treatment of gastric ulcer is suggested by Jarotzky in the June 4, 1926, issue of the *Schweizerische medizinische Wochenschrift*. After the onset of a severe hemorrhage or during it, the patient is kept in bed and is given the raw white of an egg in the morning and twenty Grams of fresh unsalted butter at about 3 p. m. This is increased every succeeding day by one white of egg and twenty Grams of butter, so that on the tenth day, about the whites of ten eggs and 180 Grams of butter are given. Aside from this food, the patient is given nothing to eat or drink—no drugs and no nutritive enemas. This diet fails only in the cases of very marked obstructions (stenoses) in the region of the pylorus or that of the anastomotic opening. To apply this diet for longer than ten days would be to disturb him unnecessarily. After this period the patient is given egg albumen in the morning, and in the afternoon strained soups which are made in water without salt and with fresh unsalted butter for various cereals (rice, manna, barley, etc.), then mashed potatoes and various purées of vegetables (also cooked in water, without salt, and with butter). Absolutely no milk is given during the whole treatment.—*Bul. Chicago M. S.*

TREATMENT OF ANTERIOR POLIOMYELITIS

Recent years have seen no change in the treatment of the acute stage of anterior poliomyelitis, which still consists of complete rest with support of the muscular and other soft tissues and symptomatic management.

The large number of serious deformities still seen following this disease indicates that the treatment of the second stage is not well understood. Not all of these curvatures and contractures can be prevented, but many of them can be, by proper handling.

Writing in *Archiv. Phys. Therap. X-Ray Radium* for April, 1926, Dr. F. H. Ewerhardt, of St. Louis, declares his belief that the only treatment which actually tends to restore the lost or damaged functions of muscles is that by which the patient is encouraged and trained to move his limbs and body of his own volition. At first a nurse may assist in initiating or carrying

out these movements, but the power must originate in the patient's own higher centers in order to open up, from above downward, nerve paths which are closed.

Summing up his observations, the doctor states:

That heat, massage and electricity are valuable in the treatment of poliomyelitis in the convalescent period for their general nutritional effect upon the muscle and nerve tissue.

That muscle fatigue and muscle stretching must be carefully avoided, as they tend to further damage the already weakened muscle.

That muscular balance between the opposing groups must be maintained to prevent deformities and further damage to muscle.

That wherever irreparable damage has been done to a limited area in the cord, thus damaging a given number of synapses, we can only hope to establish new motor tracts by repeatedly sending efferent motor impulses from brain to cord, eventually building new motor paths around the damaged area.

That this can be accomplished only by voluntary purposeful exercises.

ACTINOTHERAPY IN BURNS

Three of the chief desiderata in treating burns are to keep down infection, relieve pain and stimulate the elimination of absorbed toxic products.

Dr. E. B. Kessler, of St. Joseph, Mo., believes that these and other pleasing results can be obtained by exposing the burned areas to ultraviolet rays, radiant heat-light and the electric bath cabinet, without the use of dressing, and reports several cases in *Archiv. Phys. Therap. X-Ray and Radium* for June, 1926.

Dr. Kessler considers actinotherapy the ideal treatment for burns because:

- 1.—It relieves pain.
- 2.—Keeps down infection.
- 3.—Stimulates epithelial growth.
- 4.—Eliminates scars and contractures.
- 5.—Normalizes the red and white blood count.
- 6.—Accelerates elimination.
- 7.—Normalizes body metabolism.
- 8.—Is a wonderful tonic.
- 9.—It makes a grateful patient.

CUTANEOUS LEISHMANIOSIS IN AN ARGENTINE DOG

In *La Presna Medica Argentina* of July 10, 1926, Dr. Salvador Mazza, Director of the Institute of Clinical Surgery, reports a case of leishmaniosis ("oriental button") occurring on the skin of a dog at the base of the ear. As is known, leishmaniosis is caused by a flagellate protozoan and von Petersen in 1914 demonstrated that dogs in Russian Turkestan were infected with and were carriers of this parasite. Recently Pedroso in Brazil has reported two cases of leishmaniosis in dogs.

Dr. Mazza will make further investigations to determine if there is a relationship between leishmaniosis of dogs and cutaneous leishmaniosis found among workers in the forests.

N. S. M.

ULTRAVIOLET RAYS IN PURPURA HEMORRHAGICA

It has been found that, in cases of idiopathic purpura hemorrhagica, the count of blood platelets is markedly reduced; and it has also been determined that exposure to ultraviolet irradiations causes a prompt increase in the number of platelets in the blood.

In the *J. A. M. A.* for July 10, 1926, Drs. J. W. Sooy and T. S. Moise report favorable results in several cases of purpura treated by the following method:

On the first day the patient is given two exposures of 6 minutes each, all over the body, to a mercury-vapor quartz lamp at a distance of 13 inches. The exposures are increased by three minutes a day for five days after which the increase may be 10 minutes daily. Exposures of more than 28 minutes are rarely necessary.

This procedure results in a marked hyperemia of the skin which may be painful. In such cases treatment is omitted the following day. No serious urns have been observed.

PREVENTION OF DENGUE

In the *Southern M. J.* for April, 1926, Dr. M. D. Levy, of Houston, Tex., recalls the fact that dengue is transmitted only by the mosquito known as *Aedes Egypti*, which is a domestic insect, breeding in and around human habitations and not in the ground.

The habits of the *Aedes* are such that its eradication is a matter of hygiene rather than sanitation, for it requires the combined efforts of aroused and instructed citizens in general rather than the specialized labors of a small group of trained sanitarians. Flower vases, bulb bowls and every vessel containing water in and around the home must be frequently and carefully inspected for the presence of larvae and these, when found, must be promptly destroyed.

Dengue is almost never fatal but is extremely distressing to the patients and causes great economic waste from loss of time and expenditures for medicine. Levy estimates this loss, in Texas alone, during the epidemic of 1922, at \$1,500,000.00.

When the people realize the importance of the disease and the steps necessary to prevent it, it will disappear.

RED LIGHT IN HERPES ZOSTER

In years past, red light was highly recommended as an adjunct to the treatment of small pox, measles and other eruptive diseases. Now Dr. Harry P. Jacobson comes

forward in *Calif. and West. Med.* for January, 1926, and recommends it in the treatment of herpes zoster. He has successfully treated 12 cases by this method.

The technic of treatment is simple. The source of light is a 1000-Watt red globe, which may be used in any of the radiant heat-light apparatus. The patient undresses and the site of the lesions and the corresponding segment of the spinal column are exposed to the red rays, directed perpendicularly, for 20 minutes at a distance of 24 inches. This is repeated daily until the condition clears up. This treatment is simple, harmless and easy to apply and is said to relieve the pain, hasten involution and lessen scarring and pigmentation. It seems worth trying.

BISMUTH IN VISCERAL SYPHILIS

In dealing with syphilis affecting the internal organs, we meet with grave difficulties, as outlined by Dr. J. H. Musser, in *Am. J. of Syph.* for October, 1925.

The arsphenamines are contraindicated in cardiovascular syphilis, nephritis, hepatitis, tuberculosis, malaria and various other conditions.

In treating patients with a tendency to bleed, great care must be taken in giving neoarsphenamine and sulpharsphenamine, both of which increase this tendency.

In cases of this kind bismuth may be used to good effect and with a minimum of danger, the best results being obtained in patients with cardiovascular syphilis and nephritis of whatever variety, and in those who are hypersensitive to arsphenamines or are "arsenic-fast".

ACRIFLAVINE IN TUBERCULOSIS

Convinced of the efficacy of acriflavine [neutral acriflavine is now giving better results than the acid form.—Ed.] as an antiseptic, Dr. G. H. Johnson tried it empirically in three cases of advanced pulmonary tuberculosis, with results which far exceeded his expectations. His report appeared in the *Brit. M. J.* for Mar. 27, 1926. A solution 1:1000 in normal saline solution was given by hypodermic injection.

In the first case, a young woman, aged 24, with advanced phthisis of three years' duration, the initial dose was 5 minims, given three times at intervals of forty-eight hours. No local or general reaction being observed, the dose was then doubled and given at the same intervals. As still no contraindications were observed the dose was rapidly increased to 40 minims twice weekly. Improvement in this case was very striking—almost dramatic.

The second case, a youth, aged 21, with Pott's disease of long duration, was treated in the same way. Improvement was definite, though not so dramatic.

In the third case—advanced tuberculosis of the pleurae and lungs in a man aged 32, who had been under constant observation for four years—night sweats have ceased,

coughing is much less, the quantity of sputum is greatly diminished, and the patient has left his bed and is able to walk a mile or so daily. Johnson does not attempt to explain the action of acriflavine in these cases; he merely suggests further trial by others.

Prescriber

SODIUM THIOSULPHATE IN ARSENICAL SCLERODERMA

In the *J. Lab. & Clin. Med.*, for June, 1926, Myers, Marples, Groehl and Thorne, of New York, report the use of sodium thiosulphate for the diagnosis and treatment of arsenical scleroderma and pigmentation.

The dose recommended is 0.5 to 1.0 Gm. daily, in solution, by intravenous injections; or 1.0 Gm. by mouth, three times a day, before meals. Intravenous and oral treatment may be combined. Overdosage is almost impossible.

Their results are summarized as follows: "Sodium thiosulphate in its active form is useful in the diagnosis of scleroderma in which arsenic is a contributing factor. It is employed in such cases as those in which pigmentation is observed. Continued use of fresh crystals of sodium thiosulphate releases the arsenic that has been deposited either in the skin, or along the nerve trunks until a gradual return of normal conditions is observed. The parchment-like conditions of the skin disappear under treatment and the pigmented areas disappear. A branny desquamation very frequently accompanies clinical improvement. Thus far no evidence of kidney dysfunction have been observed. In fact, quite the reverse is noticed, namely, a stimulation of diuresis. The ingestion of large volumes of fluid is recommended. The patients respond promptly to treatment and the clinical symptoms improve."

ULTRAVIOLET RAYS IN INFANTILE ASTHMA

Dr. P. Duhem, of Paris, feels that it is as foolish to say that ultraviolet rays do no good in cases of infantile asthma as to claim that they act as a specific in all cases. Many patients do extremely well under this treatment, while some are little if at all improved.

In *Paris Médical* for February 20, 1926, the Doctor states that, to get the best

results, a special technic must be used. He begins with a complete exposure of the body for two minutes at 60 centimeters (24 inches) and increases the time two minutes at each treatment, up to six minutes, which is the longest treatment he gives. He then lowers the lamp 5 centimeters (2 inches) at each treatment, down to 45 centimeters (18 inches). After this a rest of a week or two is allowed, after which the series is repeated. He feels that the short treatments and the rest periods are important factors in the favorable outcome.

If no improvement is seen after four or five treatments it is useless to continue this form of therapy in that case; but occasional failures should not cause one to give up the use of this valuable therapeutic resource.

OCCUPATION AND TUBERCULOSIS

Dr. J. A. Britton and E. B. Bollman report, in the *Bul. Chicago Municip. Tuberc. San.* for October, 1926, an interesting study on the relation between occupation and open pulmonary tuberculosis in Chicago.

In men, the incidence of this disease is most frequent in laborers (6.23 per 1000) and next in painters and decorators (6.12 per 1000). It occurs least frequently in salesmen (1.38 per 1000) and next in carpenters (2.48 per 1000). Among women it is most frequent in telephone operators (3.17 per 1000) and least so in saleswomen (0.74 per 1000).

Of the open cases studied, 5 were found in dentists; 3 in druggists, 2 in physicians; and 11 in nurses.

NITROGLYCERIN IN POISONING BY COCAINE-EPINEPHRIN SOLUTIONS

The toxicity of mixtures of cocaine and epinephrin is well recognized and a number of antidotes have been recommended, among them caffeine, aromatic spirits of ammonia, alcohol and amyl nitrite.

Dr. Ellison W. Ross, of Chicago, feels, as a result of rather extensive animal experiments, that nitroglycerin is the most satisfactory antidote for this mixture and reports in the *J. Lab. & Clin. Med.* for June, 1926, that this drug reduces the toxicity of cocaine-epinephrin solutions 30 percent in dogs and 50 percent in cats, rendering fatal doses nonfatal.

New Books

MORSE: PEDIATRICS

CLINICAL PEDIATRICS. By John Lovett Morse, A.M., M.D. Illustrated. Philadelphia: W. B. Saunders Co. 1926. Price \$9.00.

This book is decidedly out of the ordinary in many particulars. In the first place, the author has dedicated it to his assistants instead of his teachers.

Some quotations from the preface will prove interesting.

"This book was written primarily for my own amusement, not with the idea of enlightening the world or adding anything to the sum of human knowledge.

"I have laid especial stress on methods of physical examination, because I feel that in daily practice the physician must depend very largely on his own powers of observation for a diagnosis and because I know that it is not only impossible but also unnecessary for him to carry out complicated laboratory procedures except in occasional instances. I have not attempted to give detailed descriptions of microscopic pathologic changes, which I should have been compelled to copy from some other book and which I would not recognize if I saw them. I have also not attempted to describe diseases with which I have had no practical experience. In consequence, there are many omissions.

"In discussing differential diagnosis I have tried to emphasize the facts that, in general, the diagnosis rests on one or two special symptoms or signs and that symptoms or signs common to several conditions are of no importance. I have described only those methods of treatment which I have found useful and which seem to me to be rational. Finally, I have endeavored to show the futility and unreasonableness of much of the treatment in common use."

It requires but a brief study of the book to see that the author has been as good as his word.

This is a book of more than 800 pages and gives evidence on every page of the fact that it records the clinical experience of one man and is not a compilation—a remarkable accomplishment! Even the pictures appear to be photographs of his own cases rather than standard cuts of typical appearances.

There are advantages and disadvantages in such a volume. One man, no matter how wide his experience and teaching, may be wrong about various things and his own practice may not furnish cases best adapted to conveying a knowledge of certain important matters. On the other hand, the opinions of a man of the vast clinical knowledge possessed by Dr. Morse are always of the highest interest and value.

This is not intended nor adapted for a ready reference book by students or busy

practitioners, as the type is rather small, the material not well subheaded and the illustrations are rather sparse and not always hooked up with the text. It is a book to sit down with when you have an hour or two to study, enjoy and digest its pungent and meaty contents.

Specialists in pediatrics can not afford to be without it, as it is a real contribution to their work. Sensible practitioners who realize the necessity and value of solid systematic study, instead of merely "brushing up", will gain much knowledge and power by its earnest perusal.

TOLDT: ATLAS OF ANATOMY

AN ATLAS OF HUMAN ANATOMY. For Students and Physicians. By Carl Toldt, M.D. Assisted by Professor Alois Dalla Rosa, M.D. Adapted to English and American and International Terminology. In two volumes. By Eden Paul, M.D., Brux., M.R.C.S., L.R.C.P. New York: The Macmillan Co. 1925. Price \$10.00 a set.

The value of an atlas of anatomy is beyond question, but to those who are familiar with the superb Sobotta-McMurrich atlas the present volumes are rather a disappointment.

The subject is fully covered, with ample indexes and references, but the quality of the cuts is not particularly noteworthy, and it is the cuts which determine the value of such a work as this.

All names of parts or structures are given both in English and in the classical Latin, or International nomenclature, and this, while sometimes helpful, is at other times confusing. It might be useful to a student unfamiliar with English but acquainted with Latin anatomical terminology, according to the German school.

The only reason for buying this book rather than the Sobotta-McMurrich atlas would be its price, which is considerably less than that of the earlier work.

CAMPBELL: GUIDE FOR DIABETICS

A GUIDE FOR DIABETICS. By Walter R. Campbell, M.A., M.D. (Tor.), Department of Medicine, University of Toronto, and Toronto General Hospital, and Mame T. Porter, B.Sc., Dietitian, Toronto General Hospital. Baltimore: The Williams & Wilkins Company. 1926. Price \$2.50.

The patient must cooperate with his physician in the successful treatment of diabetes. The doctor's first problem is one of investigation. He must learn the patient's tolerance for foods. Then he must establish the conditions which will conserve, improve, or supplement this tolerance. During the period of treatment he must continuously supervise and direct the efforts of the sufferer in the

way that will secure the maximum of relief. This takes much valuable time. Much of this might be conserved and used to better advantage elsewhere if some of this elementary knowledge of the disease were given through the patient's own reading. Because of this, Campbell and Porter, of the Toronto General Hospital, have prepared their small guide. In it they have put just that practical and helpful information which the diabetic should have. This is clearly and simply presented. The history, nature, and peculiarities of the disease are discussed, and the sufferer is encouraged to take an interest in his own cure. Many physicians would do well to put these valuable little books into the hands of their patients.

JACKSON: GOITER

GOITER AND OTHER DISEASES OF THE THYROID GLAND. By Arnold S. Jackson, M. D., Jackson Clinic, Madison, Wis. With 151 Illustrations. New York: Paul B. Hoeber, Inc., 1926. Price \$10.00.

This splendid contribution to the literature of goiter is based upon a large amount of work done by the author in the Mayo Clinic, the Crile Clinic and in his own clinic at Madison, Wisconsin, and embodies the most modern views regarding the etiology, diagnosis and treatment of this widespread disease.

The matter deals with the anatomy and physiology of the thyroid gland and its relation to other ductless glands; the history, etiology, symptoms, diagnosis and pathology of goiter and other diseases of the thyroid. The medical and surgical treatment is dealt with in full detail.

The book is splendidly made throughout and the illustrations are excellent, especially those showing every step in the technic of thyroidectomy. An extensive bibliography and an adequate index add to the value of the work.

The man who has been devoting especial attention to thyroid diseases will here find the latest and best ideas summarized under one cover. The practitioner, who has had little time to keep up with the extensive literature on this disease, will be able to save himself many hours of search and reading by a careful perusal of this work.

BIRTWISTLE: QUANTUM THEORY

THE QUANTUM THEORY OF THE ATOM. By George Birtwistle, Fellow of Pembroke College, Cambridge. Cambridge: At the University Press, 1926. Price \$5.00.

Even the laymen cannot avoid encountering, in his reading and conversation, such terms as electrons, protons, Bohr atom, quantum theory, etc.; and to be able to understand something of the progress of science, he should have at least an idea, in outline, of what these terms represent.

While this book of Birtwistle's is particularly intended for the student of these subjects, the more casual reader in other professions will find therein the definitions

and descriptions, clearly presented, of many physical terms which are new or still rather strange. These definitions, tersely but logically presented, constitute the introductions to the mathematical development of the implications of the "quantum" theory of Planck. This theory, put forward in 1900, is in answer to the difficulties experienced by the theories of Newton and Maxwell to explain the absorption and emission of radiation by atoms.

The quantum theory, which is generally accepted today, states that interchanges of energy between matter and radiation are not continuous, but can occur only discontinuously. An oscillating electron can emit or absorb energy only in whole multiples of a unit of energy called the "quantum"; this unit depends upon the speed of oscillation of the electron. The new "quantum theory" led to a formula for the distribution of energy in the spectrum in remarkable agreement with the results of experiment. The theory has led to important advances in physics.

The book will be of interest to those who wish to be informed in the matters discussed, as well as to the student of the subject.

BESANT: WORLD CHANGES

THE CHANGING WORLD: Fifteen lectures delivered in London during 1909. By Annie Besant. Chicago: The Theosophical Press, 1910. Price \$1.75.

That the world is in the throes of a great transition period is now widely recognized by thinking people. The War seems to have crystallized our ideas in this direction. Recognition of impending changes in the social order was not so general sixteen years ago, when this book was written, and that fact lends greater weight to its statements which appear to be at least half a generation in advance of the time in which they were uttered.

Beginning with the thesis that there is, at present, a deadlock in science, art, religion, and social conditions (which is now tolerably obvious to most of us), the author proceeds to offer some solutions of the pressing problems which now confront the world. Her wide and detailed grasp of the subjects treated is extraordinary and leads one to give respectful attention to her suggestions as to the paths which may lead us out of the wilderness.

The way out suggested for science is by means of the development of organs of perception which are now rudimentary or dormant, but which, when trained or awakened, will enable us to take direct cognizance of many matters about which we can now only speculate.

Art will emerge from the wilderness in which it has been wandering, more or less, for several decades—the misconception that a cheese, a ham or a bunch of onions, together with an old hat and a dead fish, constitute an inspiring picture; or that gobs of paint, smeared on with the thumb and viewed from a distance through half-closed

eyes, can elevate the spirit—only when the world realizes that only that is true art which portrays those things which are intrinsically beautiful and opens the realms of beauty to eyes which have not heretofore perceived them.

Religion can take its great and rightful place in our lives only when we realize that, at the bottom of the teachings of all the various sects, there is a fundamental basis of truth which is the same in all of them; and when we are willing to permit every other man the same freedom in interpreting and acting upon these truths which we require for ourselves.

The solution of our urgent sociologic problems will be found in the recognition of the fact that all mankind are brothers—some older and some younger, as in any human family—all bound together in such a way that no one person, family, or nation can permanently profit by any measure which is not for the good of all.

There are also several chapters dealing with the formation, characteristics, and functions of the new race of men, which has been forecast, from the anthropologic standpoint, by Hrdlicka.

The book is written in a style simple, clear, and eminently logical, and while some of the suggestions and conclusions may strike some of us as being rather startling and chimerical, they are led up to in such an orderly and reasonable way that they command attention and thought.

A book which should prove of the highest value to all who are interested in sociology (as all physicians ought to be), especially such as hold an open mind toward the suggestions of those who deal with the science of the unseen.

BRUGSCH: DEVELOPMENT OF GENERAL MEDICINE

DEVELOPMENT OF GENERAL MEDICINE. Edited by Professor Dr. Th. Brugsch. Vol VIII, Numbers 1-2 and 3-4. Berlin and Vienna: Urban and Schwarzenberg. 1926. (In German).

This is a monographic periodical dealing with the advances of all branches of the medical sciences, each double issue having more than 300 pages of text.

To convey an idea about the wealth of material contained in this publication we enumerate a few of the leading titles of exhaustive articles, or rather monographs: Rachitis; Stomach Neuroses; Epidemic Encephalitis; Diseases of the Extrapyramidal System; Photographic Registration of the Venous Pulse; Diseases of the Puerperium; Pathology and Clinic of Enterocolitis Plastica; Polyps of the Nose; Trophoneurotic Ulcer of the Foot; Medication of the Nervous Child; General Narcosis; Treatment of Tuberculosis with Preparations of Gold; Primary Bronchial Carcinoma; and several others.

It is obviously impossible in the limited space of a book review to discuss these contributions, as one of them alone, to cite an

example, contains almost forty pages of text. Illustrations are excellent, being mostly colored photographs of pathologic lesions. The question of the gold treatment of tuberculosis is treated exhaustively in the light of the extraordinary claims from certain sources for sanocrysin, and the distinguished clinician is impartial and conservative in his estimation of the value of this widely heralded remedy.

Each article is written by a master of his specialty and is based not only on the literature of the world, but is checked against individual experiences in the various German and Austrian clinics and the private practice or experience of the authors.

Those who understand German enough to follow a medical text will find in this periodical a fund of knowledge not obtainable in ordinary or regular periodicals.

—G. M. B.

HARWOOD: WHAT CAUSES CANCER?

WHAT CAUSES CANCER? Are the Views, the Theories, of Hutchinson, Baronaki, Cresswell, Crow, Robinson, Ross, Drew, Lane, Correct and of Value for the prevention, and the treatment of Cancer? A Study by H. H. Harwood. Only Two Hundred and Fifty Copies Printed. Richmond, Va., 104 West Franklin St.: Author, 1926. Price \$1.00.

In this little paper-bound booklet of 75 pages the author has gathered together a considerable number of quotations relative to the cause of cancer, by many recognized authorities in various fields. Many of these statements contradict each other and the author makes no categorical statement of his opinion but seems to lean toward perverted body chemistry as a cause.

An interesting compilation for those who are engaged in the study of the etiology of malignant tumors.

DORLAND AND HUBENY: X-RAY IN EMBRYOLOGY

THE X-RAY IN EMBRYOLOGY AND OBSTETRICS. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Professor of Gynecology and Obstetrics and Head of the Department of Obstetrics in the Post-graduate Medical School of Chicago, and Maximilian John Hubeny, M.D. F.A.C.R., F.A.C.P., Editor of Radiology. St. Paul, Minn.: Bruce Publishing Company. 1926. Price \$10.00.

This book represents an enormous amount of painstaking research work in a field which has never before been so adequately covered.

There are chapters on radiography of the female pelvis and of normal and abnormal pregnancies which are of practical value in connection with this comparatively new field of radiologic study, but the greater part of the volume is occupied with x-ray studies of normal and abnormal embryos and fetuses and of a wide variety of monsters.

The book, which is well made throughout, with splendid illustrations in abundance, will be especially valuable to embryologists and anatomists and should be in every large medical library as a book of reference. It will prove of small practical value to clinicians.

MILLER: CANNULA IMPLANTS

CANNULA IMPLANTS AND REVIEW OF IMPLANTATION TECHNIQS IN ESTHETIC SURGERY. By Charles Conrad Miller, M.D. Chicago: The Oak Press, 358 W. Madison St. 1926. Price \$2.00.

This is a book for those who aspire to take their place in the ranks of the "beauty specialists", or cosmetic surgeons, and describes the author's technic for implanting gutta percha, rubber and living tissue through a cannula in order to remodel the facial contours of persons who are not satisfied with their physical appearance.

It seems improbable that such a work will find a very large audience, but those who are interested in this type of surgery will probably find helpful suggestions in this little book of a hundred small pages, regarding which the author himself says that these methods are not recognized as established surgical procedures.

THORNDIKE: MAGIC AND SCIENCE

MAGIC AND SCIENCE. A History of Magic and Experimental Science during the First Thirteen Centuries of our Era. By Lynn Thorndike, Ph.D. Two Volumes. New York: The Macmillan Company. 1923. Price \$12.50.

Professor Thorndike, in two voluminous books, probes that rather neglected but interesting field of magic and science beginning with the late classical and ending with the medieval period. To the author, magic is not the art which pretends or is believed to produce effects by the assistance of supernatural beings or departed spirits or by a mastery of secret forces of nature, rather it is used to include all superstitious art and occult sciences. He delves into the life and works of representative men of the epoch and lets these mirror the human thoughts, beliefs and activities of their contemporaries. He begins with Pliny the elder, that gallant and scholarly man whose love for knowledge cost him his life. It will be recalled that Pliny perished during the eruption of Vesuvius in 79 A.D. He was commanding the flotilla of Misene at the time of the catastrophe that buried Pompei and Herculaneum. He headed for Stabiae to rescue the inhabitants menaced by the volcano and also to observe the phenomenon at close range. He was asphyxiated by the deleterious gases.

Of particular interest to the doctor is an extensive and most revealing survey on alchemy and the alchemists; the use of herbs, animals, animal parts, reptiles, insects and stones; and recipes for the cure of diseases. Exorcising, transference of ills, dreams and their interpretation, are also put on parade.

This detailed historical investigation reveals dazzling flashes of intelligence and obscurantism. However, as one reads one cannot escape the feeling that, after all, we are not very far removed from our elders. It is true we do not read the future in the quivering intestines of animals offered as a sacrifice, we have no oracles, we do not drink philter and propitiate the elements with material offerings. Yet we still wear amulets, we have our rain-makers; the faithful ones in Mexico still hear the shuffling of the feet of their saints within their closed churches and see tears of blood run down the cheeks of their wax Madonnas.

In the realm of thought the path of progress is arduous and slow. Inanities become solemn with age and it is hard to unlearn.

History of Magic and Experimental Science is a ponderous work covering some 1000 pages, scholarly and well documented, rather laborious, but for the man seriously minded it is rewarding.

S. E.

THOM: DISEASE AND EVOLUTION

HYGIEIA OR DISEASE AND EVOLUTION. By Burton Peter Thom, M.D. New York: E. P. Dutton & Company. 1926.

In this interesting little volume the author has delved into paleopathology as well as ancient and modern history to show how profoundly disease has influenced the procession of the world's events, and even the course of physical evolution. If Europe had not been decimated and debilitated by the plague, it is quite unlikely that the followers of Mahomet would have overrun it in the fourteenth century.

The book is interestingly and readably written, and while it is intended primarily for laymen, it contains much information which should be—but is not—in the possession of every physician. We recommend it as being well worth the price to almost any thoughtful person.

EYE SIGHT CONSERVATION

EYE SIGHT CONSERVATION. Bulletin 5. Issued and published by the Eye Sight Conservation Council in America, Times Bldg., New York City. Price 40 cents.

Medical News



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BARNARD AND THE ULTRAMICROSCOPE

J. E. Barnard, the British scientist who formerly made hats, is the inventor of the ultramicroscope, by means of which Dr. W. E. Gye was able to demonstrate ultramicroscopic organisms in the filterable viruses obtained from malignant neoplasms. It will magnify objects twelve million times and is capable of being adjusted to a millionth part of an inch. This remarkable instrument will be shipped from London to the Rockefeller Institute in New York, for use in various important researches.

The cut shows Mr. Barnard seated at the ultramicroscope.

DOCTORS AND IRREGULARS

A bill was recently passed by the New York State Legislature, one of the provisions of which restricts the use of the word doctor to those who are authorized by law to use it. This measure will largely do away with the all-too-prevalent notion among the laity, that regular physicians, chiropractors, cultists, faddists, etc., are all in the

same class, merely representing different schools of practice.

Another provision of this bill is aimed against misleading advertisements inserted by quacks promising immediate cures for all ailments.

As regards the privilege of guarding the public health, there are, of course, only two classes of individuals, namely: physicians and nonphysicians. The former are qualified to do whatever they consider to be for the best interests of the patient. The latter should be allowed to do only one thing in the presence of the sick, and that is to keep their mouths shut.

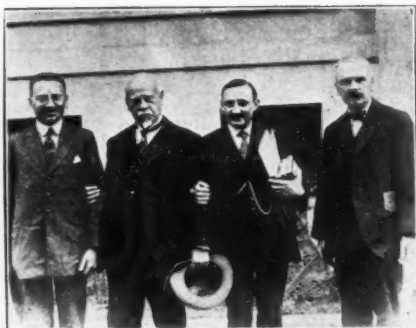
PICTURES OF 19TH CENTURY PHYSICIANS

In the interests of medical history, Johnson and Johnson, of New Brunswick, N. J., are collecting the photographs of all the physicians who attended the famous dinner in honor of Dr. Oliver Wendell Holmes which took place in April, 1883. They still lack pictures of the following men: G. W. Baker, E. D. Belden, C. E. Billington, E. Bradley, A. N. Brockway, R. A. Caldwell, J. F. Chauveau, W. M. Chamberlain, H. C. Cooper, Benj. F. Dawson, Gaspar Griswold, E. C. Kinney, Beverley Livingston, J. H. Love, J. A. Monell, G. Mourraille, Ralph L. Parsons, H. T. Pierce, Leopold Putzel, C. P. Russel, Robt. H. Saunders, C. C. Schuyler, Chas. D. Smith, Ernest Vanderpoel.

If any of our readers know where any of these pictures can be procured they will materially assist the compilation of medical history by communicating with the people who are making this collection.

KEEPING FIT

The U. S. Public Health Service has prepared a publication entitled, "Keeping Fit" which gives authoritative information on sound physical development, illustrated with numerous charts, diagrams, and pictures. Other important information on personal hygiene with special chapters on sex hygiene for the growing boy and young man are included. Readers may obtain this publication free of charge by writing to the U. S. Public Health Service, Washington, D. C.



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FOREIGN CANCER EXPERTS AT JOHNS HOPKINS UNIVERSITY

World-famous physicians from five foreign countries, all experts in cancer, met recently at Lake Mohonk, N. J., at a conference of more than 100 physicians on ways and means to wipe out cancer from among human ills. In this group are, left to right: Dr. Michaelis of France; Dr. William Welch of Johns Hopkins; Dr. Ferdinand Blumenthal of Berlin; and Dr. James A. Murray of London.

CANCER MORTALITY

Cancer kills 125,000 people every year in the United States. That means that, every four years, considerably more people die of cancer than were killed, on both sides, during the four years of the Civil War.

EASTERN PHYSIATRISTS MEET

The first annual convention of the New England Association for Physical Therapeutics met in Boston, October 26-28. The association was founded in 1906. Among the speakers were Drs. Herman Goodman, Richard Kovacs, Wm. B. Snow, New York City; H. B. Robinson, Montreal; William Martin, Atlantic City; and J. S. Stone, president of the Massachusetts State Medical Society.

DEATH OF DR. J. V. D. YOUNG

John Van Doren Young, M.D., F.A.C.S., died in New York City, October 25, 1926, at the age of 62 years.

Dr. Young was graduated from the College of Physicians and Surgeons, of New

York, in 1888, and specialized in obstetrics and gynecology, holding the position of professor of clinical gynecology at the Polyclinic School and Hospital and acting on the attending and consulting staffs of several hospitals.

INSANE PATIENTS IMPROVED BY WORK

The man who is labeled "crazy" and sent to an institution is not, as a rule, a useless hulk, unfit for any occupation. Many of these unfortunates are interested in things just as we are and much hope can be held for their recovery.

The patients at St. Elizabeth's, the Federal Government Hospital for mental cases, are greatly benefited by the work they do at the hospital, according to reports recently made. From 7,000 to 10,000 articles are made yearly by the patients under the supervision of eighteen teachers. This pho-



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tograph shows Miss Celia J. Chapman, of the occupational therapy staff, with some of the work done by insane or mentally ill patients.

CHILD WELFARE INFORMATION

The Children's Bureau of the U. S. Department of Labor has issued a series of folders dealing with various phases of Child Welfare, from the time of conception until the children are ready to go to work. Single copies of these valuable pamphlets may be had free by addressing the Bureau at Washington, D. C. If you want to distribute them to your young mothers, the Bureau will quote you prices in quantity.

SPECIALIST IN PATHOLOGY NEEDED AT KNOXVILLE, IOWA, HOSPITAL

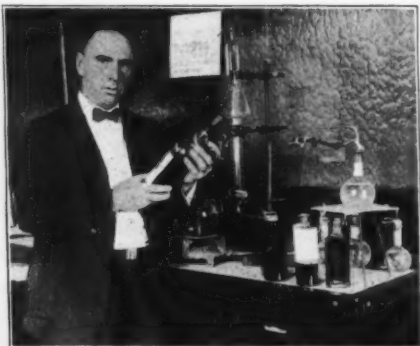
The United States Civil Service Commission states that there is a vacancy in a position of specialist in pathology at the Veterans' Bureau Hospital at Knoxville, Iowa, and that applications are being received for the position.

The entrance salary is \$3,800 a year. Promotion to higher grades may be made in accordance with the civil service rules.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

JOURNAL OF PREVENTIVE MEDICINE

A new journal, dealing with the various phases of preventive medicine—which is likely to be the medicine of the future—issued its first number in September, 1926. The Editor is Dr. Edwin O. Jordan and the publication is sponsored by the John McCormick Institute for Infectious Diseases, Chicago.



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UNCOVERING QUACKERY IN MEDICINES

The alleged medicinal value of slightly radioactive waters, hair tonics, bath compounds, tissue creams, tonic tablets, face powders, ointments, mouth washes, healing pads and other preparations have been found by the Bureau of Chemistry of the

U. S. Department of Agriculture, which enforces the Federal food and drugs act, to be greatly misrepresented. In this photograph J. W. Sales, chemist in charge, is shown making experiments which determine just what radioactivity such articles possess.



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ONLY JAPANESE WOMAN SCIENTIST TO RECEIVE GOVERNMENT SUBSIDY FOR RESEARCH

Madame Chikako Kuroda, of the Physical Science Research Institution, in Tokyo, is the only woman to receive a subsidy from the Education Minister of Japan to encourage her to continue her researches in natural science.

COMPRESSED TABLETS

In this day of the wide and general use of medicines in the form of compressed tablets, it is difficult to realize that the first commercial tablet triturates were made in 1878 by Horatio N. Fraser, who was graduated from the Philadelphia College of Pharmacy in 1872. A somewhat similar process was granted a patent in England in 1843, but never came into general use.

THE RADIOLOGICAL REVIEW

The Radiological Review, a journal dealing with progress in the use of x-rays and radium from the standpoint of the general practitioner, will be issued monthly instead of bi-monthly after January, 1927, and will be increased from 32 to 64 pages.

Send for This Literature

To assist doctors in obtaining current literature published by manufacturers of equipment, pharmaceuticals, physicians' supplies, foods, etc., CLINICAL MEDICINE will gladly forward requests for such catalogues, booklets, reprints, etc., as are listed from month to month in this department. Some of the material now available in printed form is shown below, each piece being given a key number. For convenience in ordering, our readers may use these numbers and simply send requests to this magazine. Our aim is to recommend only current literature which meets the standards of this paper as to reliability and adaptability for physicians' use.

Both the literature listed below and the service are free. In addition to this, we will gladly furnish such other information as you may desire regarding additional equipment or medical supplies. Make use of this department.

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|--------|--|--------|---|
| JJ-30 | Helping the Cell to Help Itself. 32-page booklet by The Alkalol Co. | JJ-238 | Ethical Medicinal Specialties. 8-page booklet. A. H. Robins Co. |
| JJ-31 | The Romance by Digitalis—The Story of Its Discovery. 12-page booklet by Hoffman-La Roche Chem. Co. | JJ-309 | The Journal of Organotherapy. 95-page booklet published monthly. G. W. Carrick Company. |
| JJ-55 | Your Prestige and Profit. 8-page booklet. The Carroll Dunham Smith Pharmacal Co. | JJ-311 | The Cure of Cystitis, Pyelitis and other Inflammatory Conditions of the Urinary Tract. Chicago Pharmacal Co. |
| JJ-65 | Intestinal Infections of Children. 14-page booklet by Battle & Co. | JJ-380 | Nativell's Crystallized Digitaline. 8-page booklet. E. Fougera & Co. |
| JJ-69 | Gonoson. 4-page folder by Riedel & Co. | JJ-403 | Medinal. 4-page folder. Schering & Glatz, Inc. |
| JJ-75 | Intestinal Rectal and Anal Pathology. Booklet by Nujol Laboratories. | JJ-675 | The Largest Organ in the Body THE LIVER is Usually the Most Neglected and Least Understood. Vass Chemical Co. |
| JJ-81 | Auto-Intoxication. 20-page booklet by Burnham Soluble Iodine Co. | JJ-680 | Agar of No Consequence in Emulsions of Liquid Petrolatum. Standard Oil Co. |
| JJ-84 | Storm Binder and Abdominal Supporter. 4-page folder by Dr. Katherine L. Storm. | JJ-682 | A Selected List of Special Formulas. 16-page booklet. Maltbie Chemical Co. |
| JJ-172 | Phyllosan in Anemia, Chlorosis and Wasting Diseases. 4-page booklet. Merck & Co. | JJ-685 | Theocalcin—A Diuretic and Vascular Remedy. E. Bilhuber, Inc. |
| JJ-198 | Pluto Water. Its Medicinal Values. 16-page booklet. French Lick Springs Hotel Co. | JJ-687 | How Yeast Vitamines Help the Physician. Carroll Dunham Smith Pharmacal Co. |
| JJ-222 | Rabies Vaccine. 24-page booklet. Parke, Davis & Co. | | |

- JJ-689 A Few Notes Regarding Psychoanalysis. 32-page booklet. Fellows Med. Mfg. Co.
- JJ-691 Mineral Waters Therapeutically Considered. 24-page booklet. Hiram Ricker & Co.
- JJ-703 The Oft Unrecognized Importance of Acid Intoxication. 8-page booklet. Vass Chemical Co.
- JJ-706 The Prevention of Fecal Retardation. William R. Warner & Co., Inc.
- JJ-762 Campho-Phenique Ointment. Campho-Phenique Company.
- JJ-773 The Child in Medicine. 24-page booklet. Battle & Co.
- JJ-774 Detoxol Liquid. Wm. S. Merrell Company.
- JJ-775 Intravenous Treatment of Hay Fever. New York Intravenous Laboratory.
- JJ-779 The Dangers of Curettage. Huston Bros. Company.
- JJ-780 Optotypes, by John Green, M.D., LL.D., and A. E. Ewing, A.M., M.D. C. V. Mosby Company.
- JJ-781 Hang This Up—It Tells How to Make Percentage Solutions. Sharp & Dohme.
- JJ-784 The Vicious Circle and Its Efficient Treatment. Vass Chem. Co.
- JJ-785 Health You Admire. How Thousands Have Conquered Their Ills. The Fleischmann Co.
- JJ-786 The Direct Specific Stimulant to the Respiratory Center. Ernst Bischoff Co., Inc.
- JJ-791 Ovarian Endocrine Therapy. Ciba Company.
- JJ-799 The Therapeutic Review, November, 1926. Battle & Co.
- JJ-803 "Etiology and Intravenous Treatment of Chronic Conditions," by V. K. Jindra, M.D., Miami, Fla. Loeser Laboratory.
- JJ-804 "The Future of Therapeutics," by W. Willard Armstrong, M.D., New York City. Loeser Laboratory.
- JJ-805 "Sodium Ricinoleate in Treatment of Pyorrheal Conditions." Wm. S. Merrell Co.
- JJ-806 "Vincent's Infection." Wm. S. Merrell Co.
- JJ-807 "Victor High Frequency Electrodes and Accessories, Bulletin No. 266." Victor X-Ray Corp.
- JJ-808 Pill Alophen. Parke, Davis & Co.
- JJ-809 "A Few Therapeutic Suggestions. The Management of the Nephritides." Parke, Davis & Co.
- JJ-810 "Mellin's Food—A Milk Modifier." Mellin's Food Co.
- JJ-811 Fischer's Magazine, November, 1926, H. G. Fischer & Co., Inc.
- JJ-812 "Equisetene, A Perfect Suture." The Kahlenberg Labs., Inc.
- JJ-813 "Victor Galvanic and Sinusoidal Electrodes and Accessories." Victor X-Ray Corp.
- JJ-814 "Without Any Question The Best For Digestion." Reed & Carnrick.
- JJ-815 Anabolin. A Depressor Principle from the Liver. Harrower Lab., Inc.
- JJ-816 "The Electron, November, 1926." McIntosh Electrical Corp.
- JJ-817 Insomnia and Nervousness. Ciba Co.
- JJ-818 Pain and Its Relief. Ciba Co.
- JJ-819 The Quartz Lamp, October 15, 1926. Hanovia Chem. & Mfg. Co.
- JJ-820 "Victor Vario-Frequency Diathermy Apparatus." Victor X-Ray Corp.
- JJ-821 "The Advantage of the Physiotherapy Treatment of Diseased Tonsils." Hanovia Chem. & Mfg. Co.

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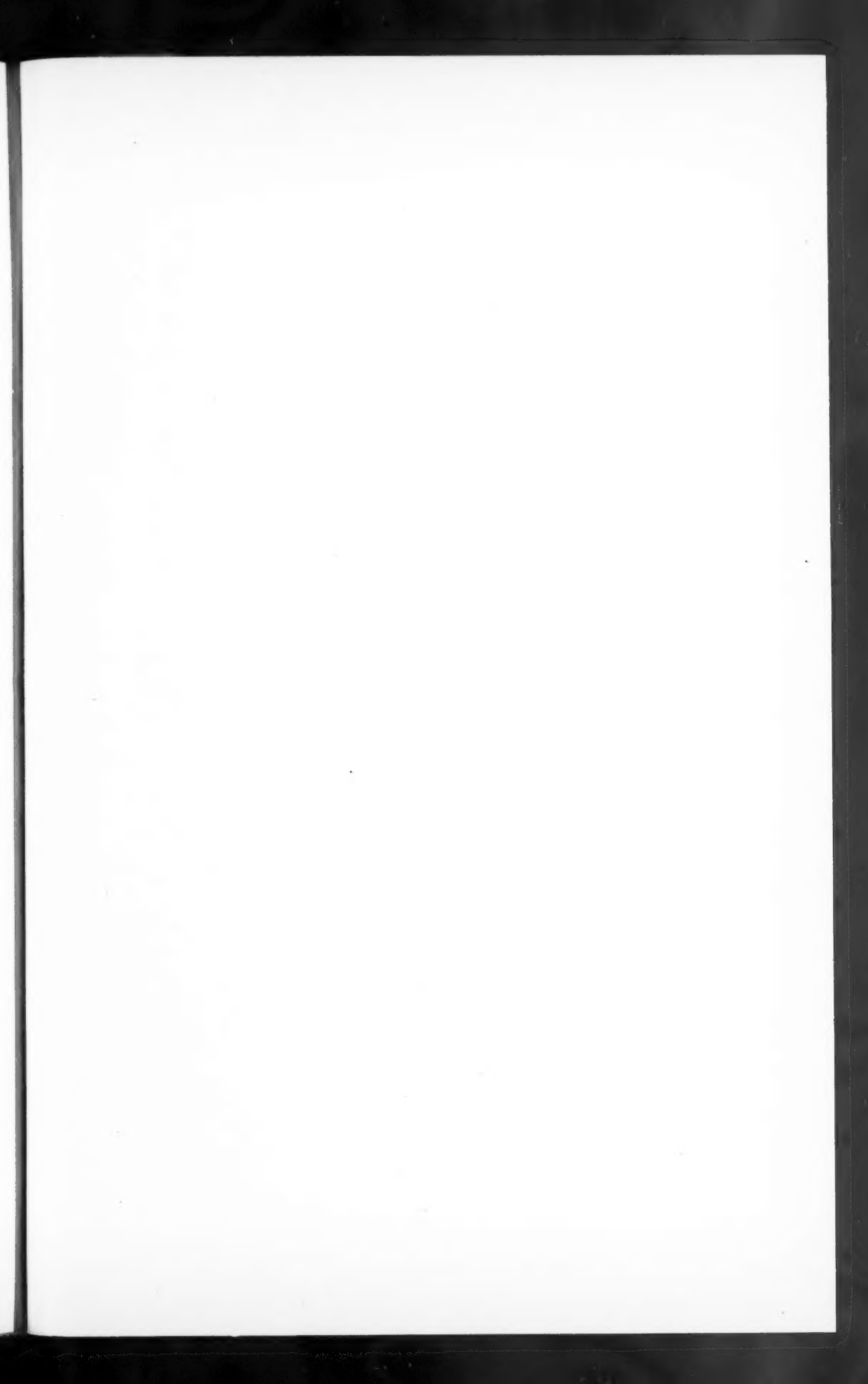
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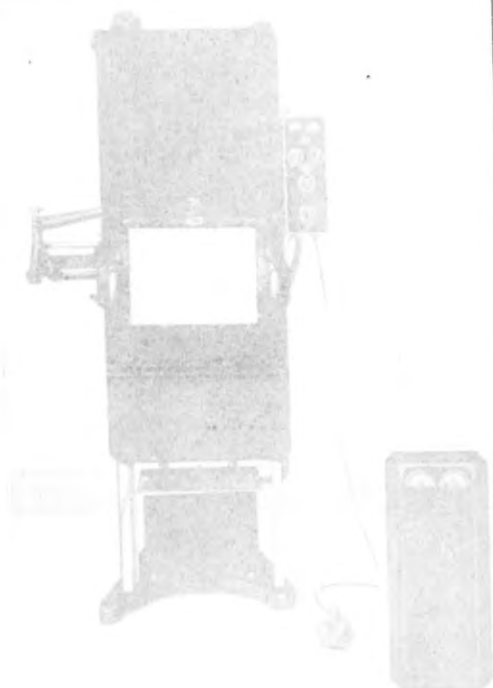
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